4-CH/STEREO RECEIVER

MODEL AS-970

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SECTION 1

SERVICE MANUAL

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I. SPECIFICATIONS

An asterisk next to a figure indicates the minimum guaranteed performance.

§ AMPLIFIER SECTION

RATED OUTPUT	4-CHANNEL	26W at 8Ω (1 channel operation 1 kHz 0.5%)
	2-CHANNEL POWER DOUBLER	50W at 8Ω (1 channel operation 1 kHz 0.5%)
FREQUENCY RESPONSE	PHONO	100 Hz 13±1.5 dB 10 kHz –13.5±1.5 dB
	AUX	20 Hz/–2.0 dB, 50 kHz/–3.0 dB
POWER BAND WIDTH		10 Hz to 50 kHz
INPUT SENSITIVITY	PHONO	3 mV (–48±1.5 dB)
	MIC	3 mV (–48±1.5 dB)
	AUX	170 mV (–13±1.5 dB)
	TAPE 1, 2	180 mV (–12.5±1.5 dB)
	TAPE 3	150 mV (–14±1.5 dB)
	CD-4	150 mV (–14±1.5 dB)
SIGNAL TO NOISE RATIO	PHONO	Better than 35 dB
	MIC	Better than 35 dB
	AUX-DISC 4 CH	Better than 40 dB
	AUX-SQ	Better than 35 dB
	TAPE 1, 2	Better than 40 dB
	TAPE 3	Better than 45 dB
	CD-4	Better than 45 dB
RESIDUAL NOISE		Less than 4.3 mV (Less than –45 dB)
TONE CONTROL	BASS	10±1.5 dB at 100 Hz –10±1.5 dB at 100 Hz
	TREBLE	10±1.5 dB at 10 kHz –10±1.5 dB at 10 kHz
LOUDNESS CONTROL		8±2 dB at 100 Hz 4.5±2 dB at 10 kHz
FILTER	HIGH CUT	–7±1.5 dB at 10 kHz
	LOW CUT	–6±1.5 dB at 50 Hz
CROSS TALK		Better than 50 dB
LEFT-RIGHT DEVIATION		Within 3 dB
FRONT-REAR DEVIATION		Within 3 dB
RECORDING OUTPUT	TAPE 1 DIN	32 mV (–27.5±1.5 dB)
	PIN	170 mV (–13±1.5 dB)
	TAPE 2	170 mV (–13±1.5 dB)
	TAPE 3	150 mV (–14.5±1.5 dB)
DISTORTION FACTOR		Less than 0.1% (8Ω 10W output)

§ SQ SECTION

	Input		F.L	F.R	R.L	R.R
CROSS TALK	F.L	1 kHz	0±2 dB	–15±2 dB	–2.5±2 dB	–2.5±2 dB
	F.R	1 kHz	–15±2 dB	0±2 dB	–2.5±2 dB	–2.5±2 dB
PHASE DEVIATION	F.L	1 kHz	0°		–115±20°	
	F.R	1 kHz		0°		+65±20°

§ FM SECTION

	Input		F.L	F.R	R.L	R.R
CROSS TALK	F.L	1 kHz	0±2 dB	–12±2 dB	–1±2 dB	–6±2 dB
	F.R	1 kHz	–12±2 dB	0±2 dB	–6±2 dB	–1±2 dB
PHASE DEVIATION	F.L	1 kHz	0°		+90±20°	
	F.R	1 kHz		0°		–90±20°

§ FM TUNER SECTION

FREQUENCY RANGE		J 75 to 91±1 MHz U 87 to 109±1 MHz
DIAL TRACKING ERROR		±250 kHz
SENSITIVITY (IHF)		1.9 μV *Less than 3.5 μV (Less than 11 dB)
SENSITIVITY DEVIATION		Within 3 dB
IMAGE REJECTION RATIO		80 dB *Better than 70 dB
IF REJECTION RATIO		100 dB *Better than 80 dB
SPURIOUS REJECTION RATIO		Better than 80 dB
CAPTURE RATIO (IHF)		Less than 2 dB
SELECTIVITY		70 dB *Better than 60 dB
AM SUPRESSION RATIO		Better than 45 dB
SIGNAL TO NOISE RATIO	MONAURAL	70 dB *Better than 50 dB
	STEREO	Better than 50 dB
DISTORTION FACTOR	MONAURAL	0.4% *Less than 0.5%
	STEREO	0.7% *Less than 1.5%
FREQUENCY RESPONSE		J −11±1.5 dB at 10 kHz U −14±1.5 dB at 10 kHz
STEREO SENSITIVITY		14 μV (23±3 dB)
STEREO INDICATOR SENSITIVITY		14 μV (23±3 dB)
STEREO SEPARATION		40 dB *Better than 35 dB
REJECTION RATIO		Better than 50 dB
L-R REVIATION		Within 3 dB
RECORDING OUTPUT	PIN	170 mV (−13±1.5 dB)
	DIN	35 mV (−27.5±1.5 dB)

§ AM TUNER SECTION

FREQUENCY RANGE	525±5 kHz to 1,650±20 kHz
DIAL TRACKING ERROR	Within 2%
SENSITIVITY (IHF)	200 μV *Less than 350 μV (Less than 50 dB)
SENSITIVITY DEVIATION	Within 6 dB
IMAGE REJECTION RATIO	60 dB *Better than 50 dB
IF REJECTION RATIO	50 dB *Better than 45 dB
SELECTIVITY	Better than 30 dB
SIGNAL TO NOISE RATIO	Better than 40 dB
DISTORTION FACTOR	Less than 1.5%
FREQUENCY RESPONSE	−15 dB at 3 kHz

§ OTHER

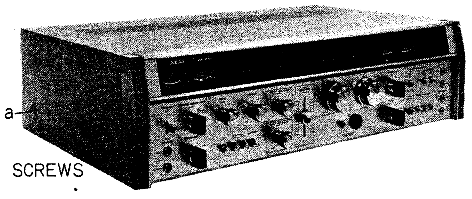
TRANSISTORS	2SA706-3 (1) (2) . . . 5 2SA733 (P) (Q) (R) . . . 1 2SC313 (E) (F) . . . 1 2SC711 (E) (F) . . . 7 2SC839 (H) . . . 3 2SC922 (L) . . . 2	2SC945 (P) (Q) (R) . . . 2 2SC1096 (K) (L) . . . 1 2SC1124 (1) (2) . . . 8 2SC1312 (F) (G) . . . 40 2SC1444 (O) (Y) . . . 8
FET	2SK30 . . . 1	
I.C.	LA1221 . . . 4	LA3300 . . . 1
DIODES	1N34A . . . 7 1N60 . . . 7 10D1 . . . 12	WG599 . . . 1 HIFI 400V 3A . . . 8
ZENER DIODES	WZ-130 . . . 2	
VARISTORS	STV-3H . . . 4	
POWER SOURCE	100 to 240V A.C. 50/60 Hz 120V A.C. 60 Hz (CSA Models)	
POWER CONSUMPTION	350W/4Ω (at maximum output) 190W/4Ω (at 1/3 output)	
DIMENSIONS	587(W)x168(H)x397(D) mm (23.1"x6.6"x15.6")	
WEIGHT	17.4 kg (38.3 lbs)	

NOTE: Specifications subject to change without notice.

II. DISMANTLING OF UNIT

In case of trouble, etc. necessitating disassembly, please disassemble in the order shown in photographs. Reassemble in reverse order.

1



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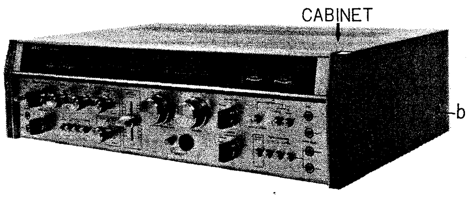

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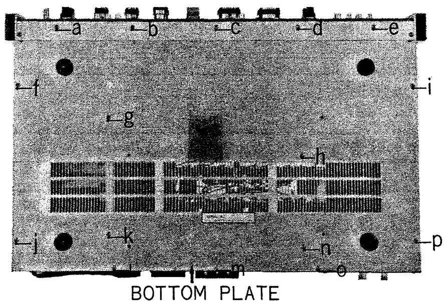
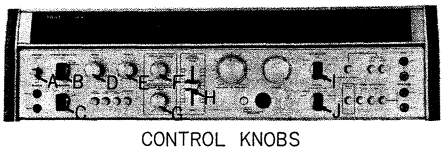
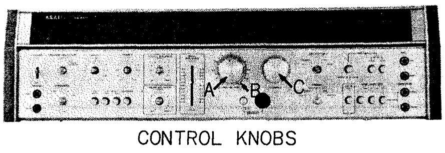

a
b
c
d
e
f
i
g
h
j
k
n
p
o
m
BOTTOM PLATE

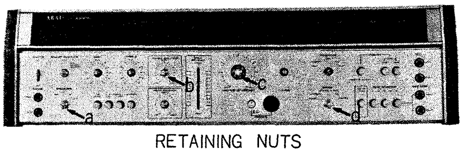
4


A
B
D
E
F
I
C
G
H
J
CONTROL KNOBS

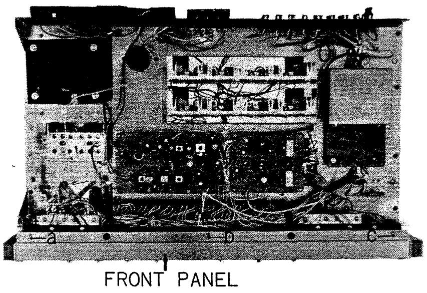
5


A
B
C
CONTROL KNOBS

6


b
c
a
d
RETAINING NUTS

7


a
b
c
FRONT PANEL

III. ARRANDEMENT OF MAIN PARTS

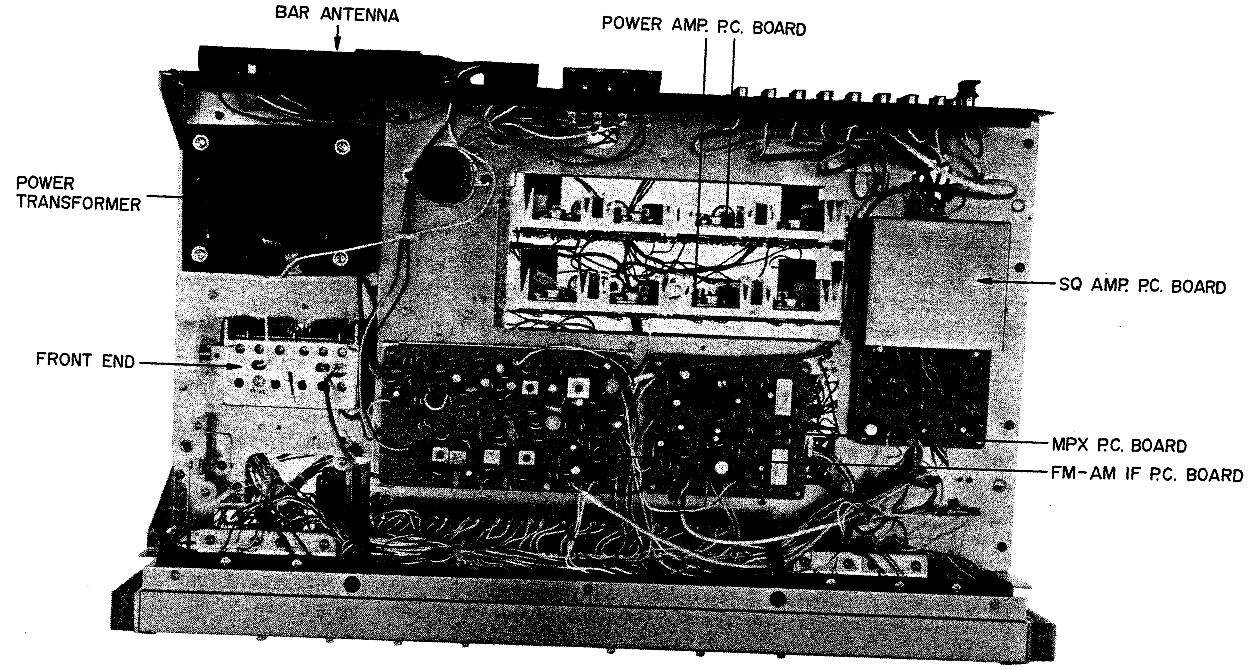

BAR ANTENNA
POWER AMP. P.C. BOARD
POWER TRANSFORMER
SQ AMP. P.C. BOARD
FRONT END
MPX P.C. BOARD
FM-AM IF P.C. BOARD

Fig. 1

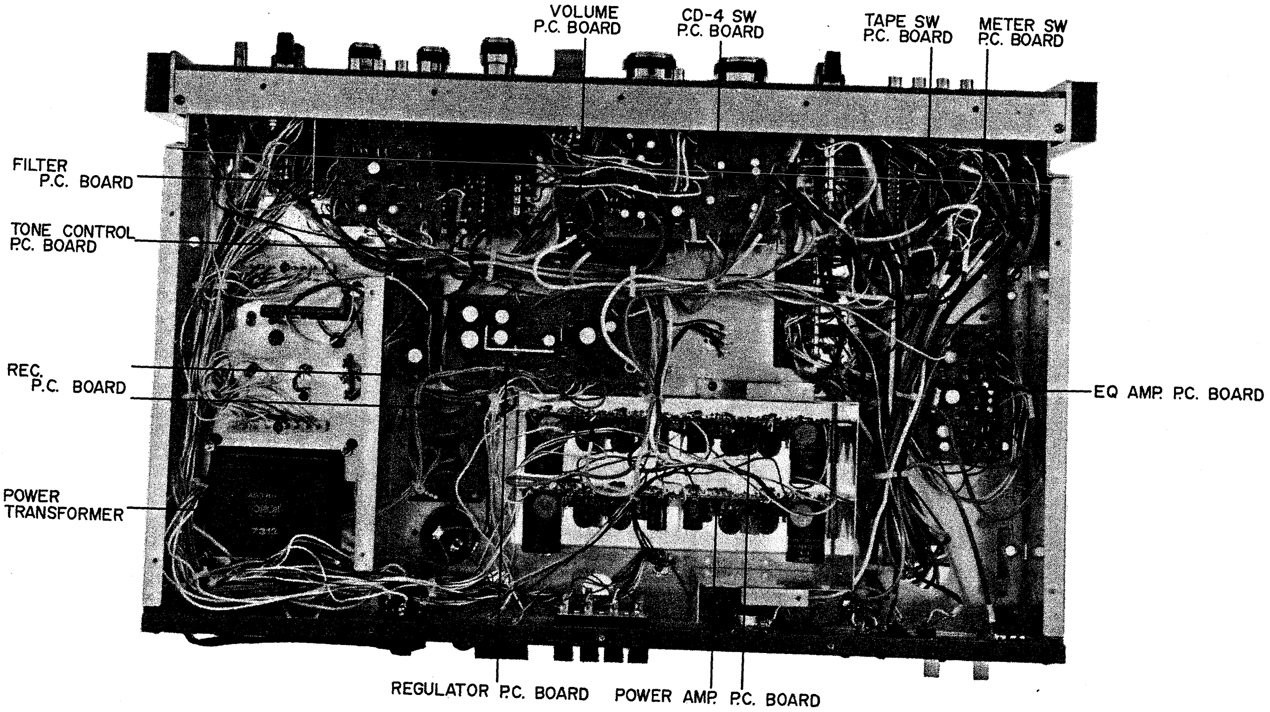

VOLUME P.C. BOARD
CD-4 SW P.C. BOARD
TAPE SW P.C. BOARD
METER SW P.C. BOARD
FILTER P.C. BOARD
TONE CONTROL P.C. BOARD
REC. P.C. BOARD
EQ AMP. P.C. BOARD
POWER TRANSFORMER
REGULATOR P.C. BOARD
POWER AMP. P.C. BOARD

Fig. 2

IV. NECESSARY MEASURING INSTRUMENTS

Measuring Instrument	Model	For
AM-FM Radio IF Genescope	Meguro MSW-721C	FM and AM IF Adjustment
FM Standard Signal Generator	Meguro MSG-278G	FM Tracking, Sensitivity Adjustment
FM Stereo Modulator	Meguro MSG-211E	Stereo Separation Adjustment
AM Standard Signal Generator	Meguro MSG-221C	AM Tracking, Sensitivity Adjustment
AM Loop Antenna	Meguro MLA-1001B	AM Tracking, Sensitivity Adjustment
High Sensitivity V.T.V.M.	Kikusui 183E	Sensitivity, Stereo Separation Adjustment
Distortion Meter	Shibasoku 760C	Sensitivity Adjustment
Ampere Meter	Yokogawa 2011	Power Amp. Adjustment

Chart 1

V. CLASSIPICATION OF VARIOUS P.C. BOARDS AND INTERCHANGEABILITY

P.C. Board		Model				
		AS-980	AS-960	AA-940	AA-930	AA-920
METER SWITCH P.C. BOARD	97-5001	98-5003				
BALANCE CONTROL P.C. BOARD	97-5002					
CD-4 SWITCH P.C. BOARD	97-5003	98-5004	96-5003			
TAPE SWITCH P.C. BOARD	97-5004	98-5002	96-5001			
FILTER P.C. BOARD	97-5005					
MIC, DUB. P.C. BOARD	97-5006					
DIAL ILLUMINATION P.C. BOARD	97-5008	98-5001	97-5008	AA-5029	AA-5029	AA-5029
POWER AMP. P.C. BOARD	97-5009	92-5005	96-5008	94-5013	94-5013	92-5005
SQ. AMP. P.C. BOARD	97-5010	98-5015	97-5010			
VOLUME P.C. BOARD	98-5006	98-5006				
TONE CONTROL P.C. BOARD	98-5007	98-5007	96-5006	94-5025	94-5025	92-5010
EQ. AMP. P.C. BOARD	98-5008	98-5008	96-5004	94-5012	94-5012	92-5003
RECT. P.C. BOARD	98-5010	98-5010	98-5010			
LAMP RECT. P.C. BOARD	98-5011	98-5011				
HEADPHONE P.C. BOARD	98-5012	98-5012	98-5012	94-5022	94-5022	94-5022
REGULATOR P.C. BOARD	98-5084	98-5084*	98-5084*			
MPX. P.C. BOARD	94-5008	94-5008*	91-5033	94-5008	94-5008	94-5008
FM-AM IF P.C. BOARD	94-5009	94-5009*	91-5033	94-5009	94-5009	94-5009

NOTE: * . . . No Interchangeable

Chart 2

VI. FM TUNER SECTION ADJUSTMENTS

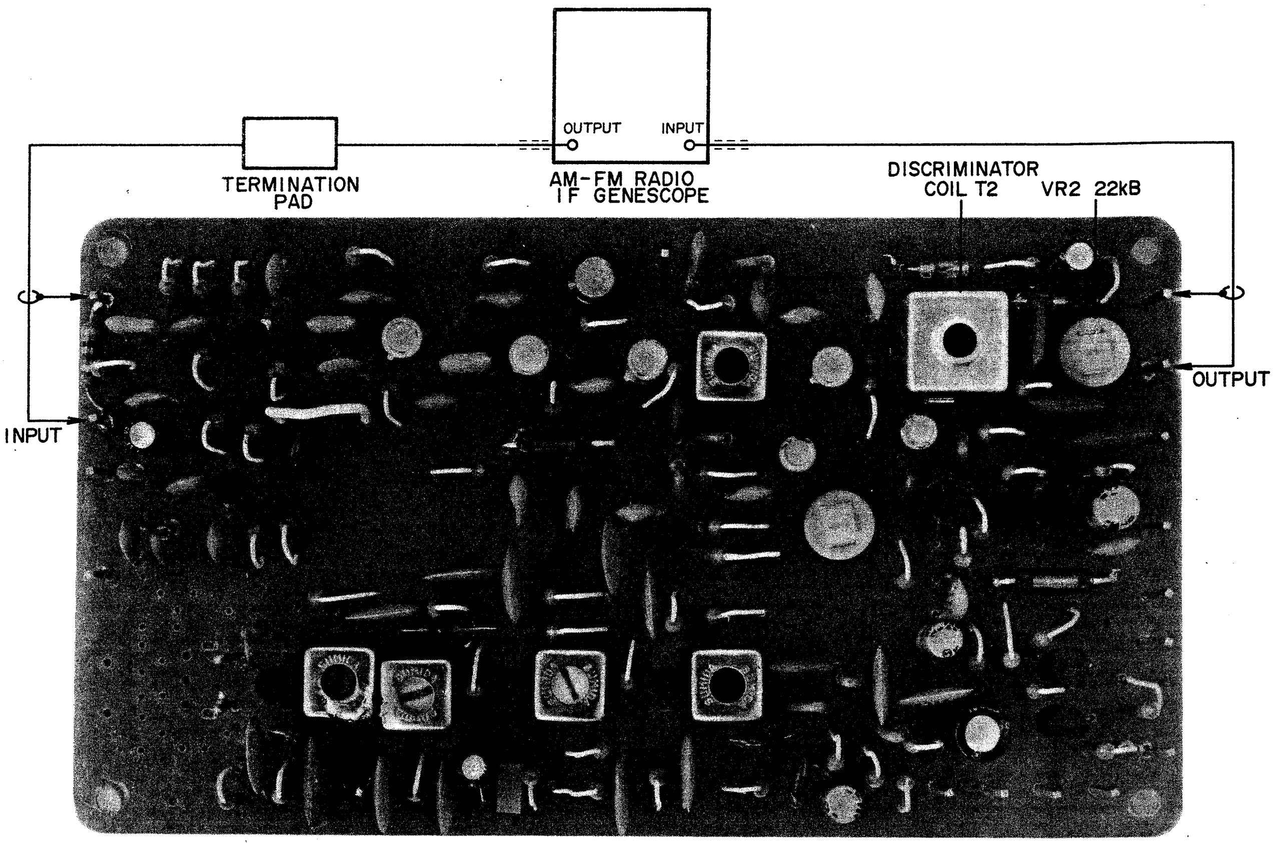

OUTPUT
INPUT
TERMINATION PAD
AM-FM RADIO IF GENESCOPE
DISCRIMINATOR COIL T2
VR2 22kB
OUTPUT
INPUT

Fig. 3 INSTRUMENT CONNECTIONS

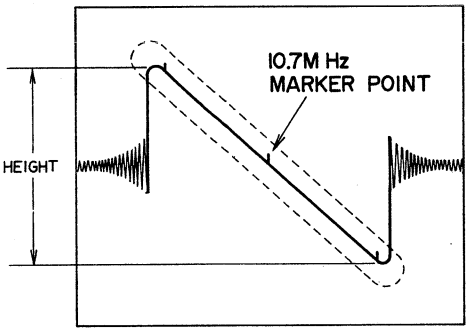

10.7M Hz MARKER POINT
HEIGHT

Fig. 4

Vertical Gain	0.3Vp-p to 1 cm
GENESCO Output Level	50 dB
Discriminator Coil	T2
S Curve Height	5 cm

Chart 3

1. FM IF CIRCUIT ADJUSTMENT

1) Connect the lead wires from an AM-FM Radio IF GENESCOPE (hereinafter referred to as GENESCO) to the input as well as the output of the FM-AM IF P.C. Board as shown in Fig. 3.
2) Set GENESCO to FM mode and adjust vertical gain (refer to Chart 3).
3) Set Receiver SELECTOR to FM AUTO, and tuning indicator needle to extreme right end of the dial. At this time confirm that a noise element does not enter the S Curve shown in Fig. 4.
4) Adjust output level of GENESCO (refer to Chart 3).
5) Manually center FM-AM IF P.C. Board semi-fixed resistor VR2 22 kB.
6) Adjust the upper and lower cores of Discriminator Coil so that the wave height value of the S Curve shown in Fig. 4 is maximum and the linearity of the part indicated by the dotted line is optimum. (Refer to Fig. 4 and Chart 3)

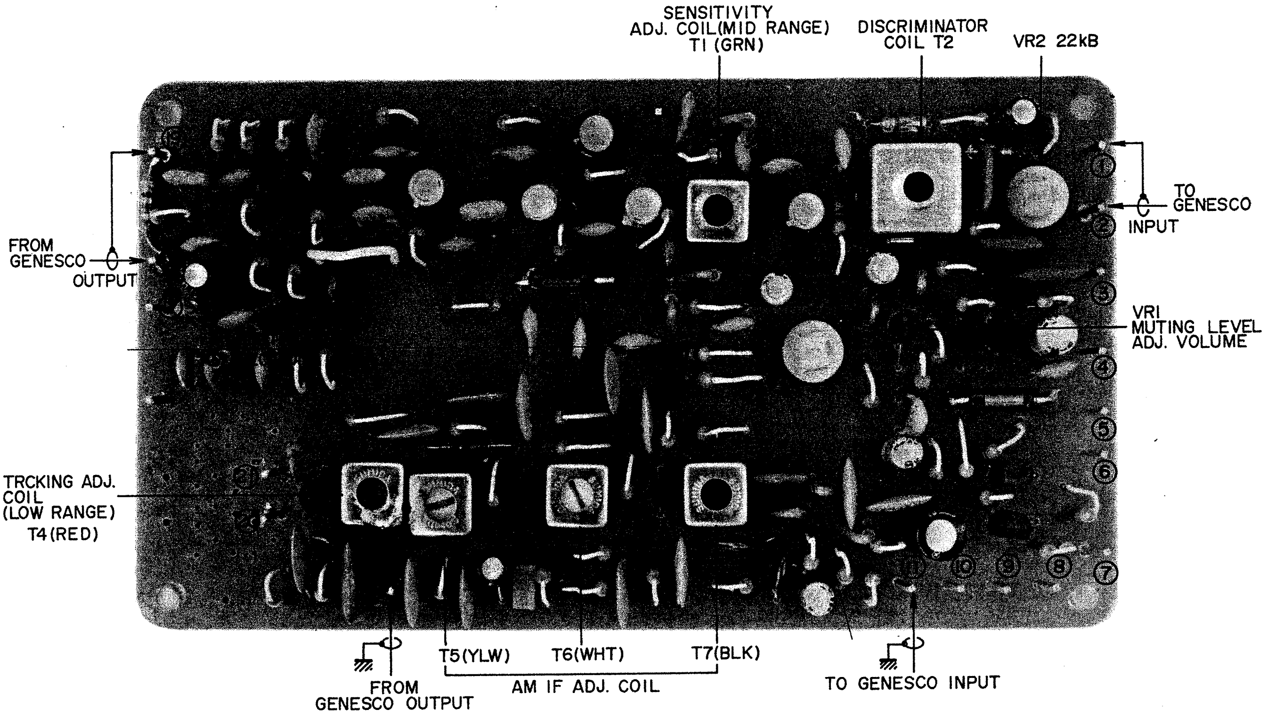

SENSITIVITY ADJ. COIL (MID RANGE) T1 (GRN)
DISCRIMINATOR COIL T2
VR2 22kB
TO GENESCO INPUT
FROM GENESCO OUTPUT
VR1 MUTING LEVEL ADJ. VOLUME
TRCKING ADJ. COIL (LOW RANGE) T4 (RED)
T5 (YLW)
T6 (WHT)
T7 (BLK)
AM IF ADJ. COIL
FROM GENESCO OUTPUT
TO GENESCO INPUT
①
②
③
④
⑤
⑥
⑦
⑧
⑨
⑩
⑪

Fig. 5 FM-AM IF P.C. BOARD 94-5009

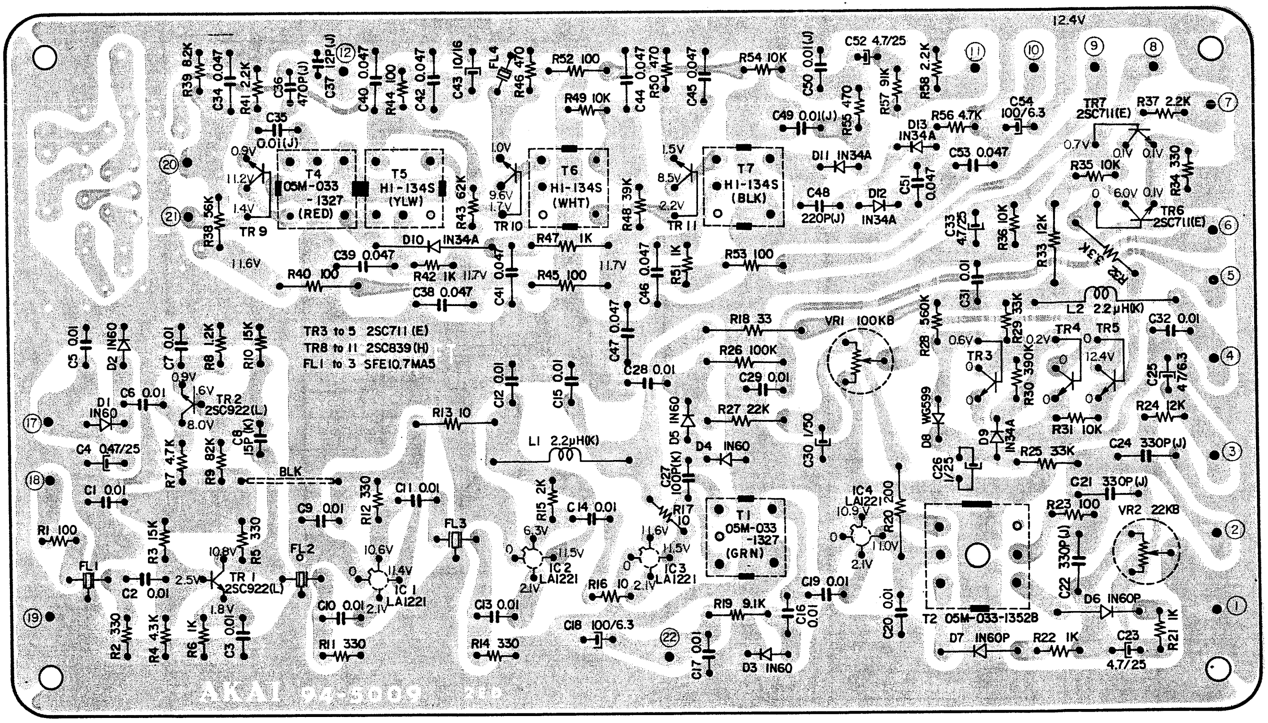
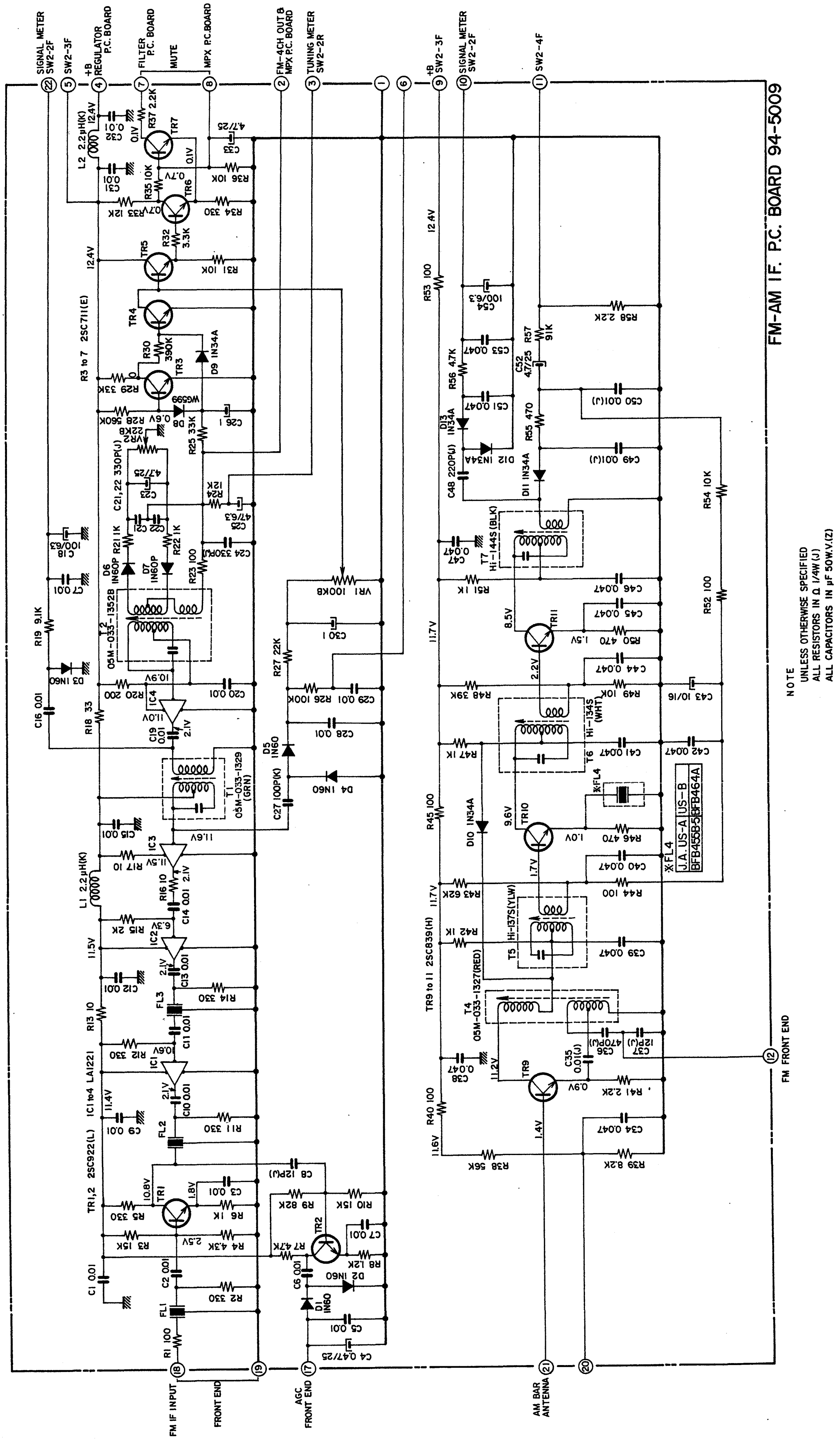

12.4V
TR3 to 5 2SC711 (E)
TR8 to 11 2SC839 (H)
FL1 to 3 SFE10.7MA5
T4 05M-033 -1327 (RED)
T5 H1-134S (YLW)
T6 H1-134S (WHT)
T7 H1-134S (BLK)
T1 05M-033 -1327 (GRN)
T2 05M-033-1352B
TR1 2SC922(L)
TR2 2SC922(L)
TR7 2SC711(E)
TR6 2SC711(E)
TR9
TR10
TR11
TR3
TR4
TR5
IC1 LA1221
IC2 LA1221
IC3 LA1221
IC4 LA1221
VR1 100KB
VR2 22KB
L1 2.2μH(K)
L2 2.2μH(K)
D1 1N60
D2 1N60
D3 1N60
D4 1N60
D5 1N60
D6 1N60P
D7 1N60P
D8 WG599
D9 1N34A
D10 1N34A
D11 1N34A
D12 1N34A
D13 1N34A
BLK
AKAI 94-5009

Fig. 6 FM-AM IF P.C. BOARD 94-5009 (Rev.)


FM-AM I.F. P.C. BOARD 94-5009
NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN Ω 1/4W (J)
ALL CAPACITORS IN μF 50W.V.(Z)
SIGNAL METER SW2-2F
SW2-3F
+B REGULATOR P.C. BOARD
FILTER P.C. BOARD
MUTE
MPX P.C. BOARD
FM-4CH OUT & MPX P.C. BOARD
TUNING METER SW2-2R
+B SW2-3F
SIGNAL METER SW2-2F
SW2-4F
FM IF INPUT
FRONT END
AGC FRONT END
AM BAR ANTENNA
FM FRONT END
TR1,2 2SC922(L)
IC1 to 4 LA1221
R3 to 7 2SC711(E)
TR9 to 11 2SC839(H)
T1 05M-033-1329 (GRN)
T2 05M-033-1352B
T4 05M-033-1327(RED)
T5 Hi-137S(YLW)
T6 Hi-134S (WHT)
T7 Hi-144S(BLK)
※FL4
J.A. US-A | US-B
BFB455B5 | BFB464A

Schematic 1

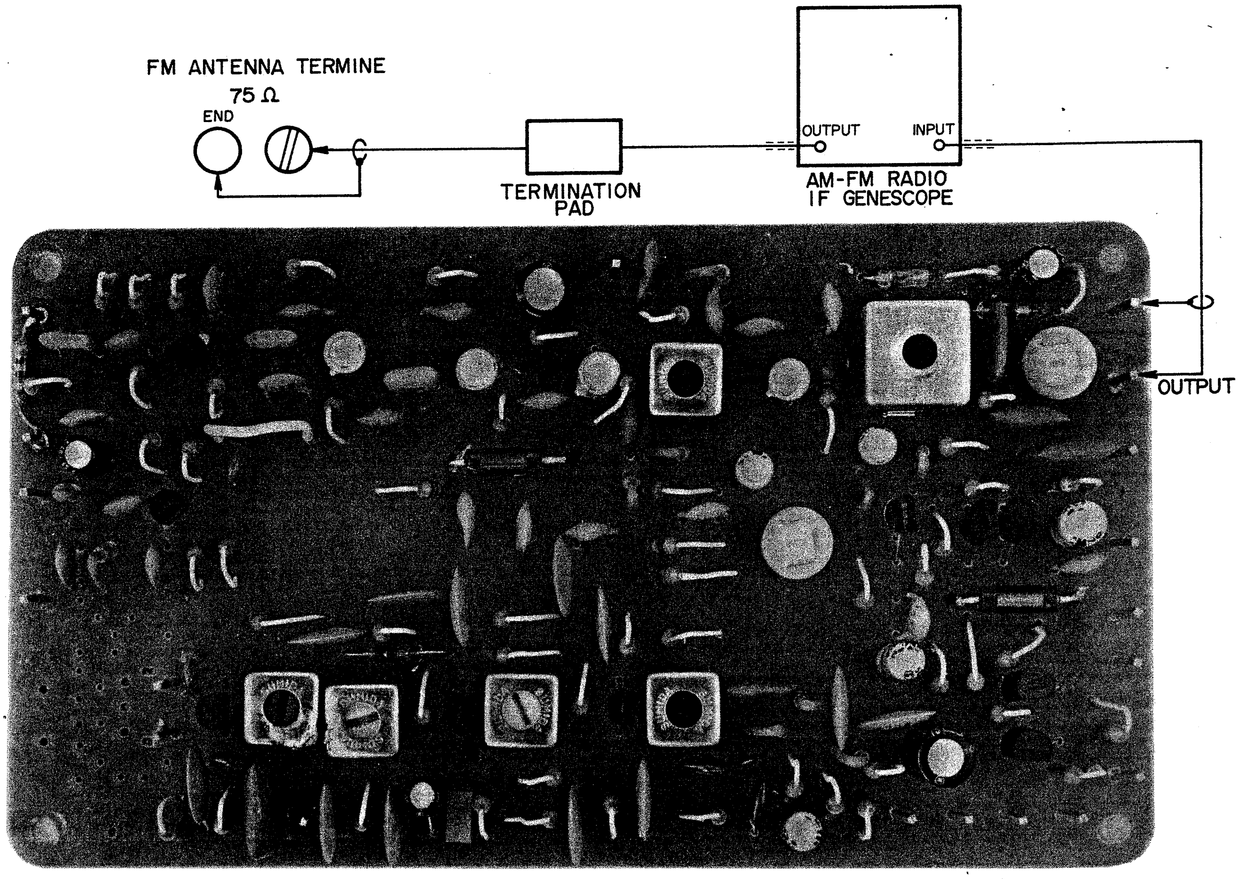

FM ANTENNA TERMINE
75 Ω
END
TERMINATION PAD
OUTPUT
INPUT
AM-FM RADIO
IF GENESCOPE
OUTPUT

Fig. 7 INSTRUMENT CONNECTIONS

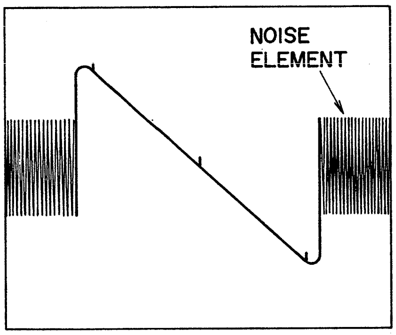

NOISE ELEMENT

Fig. 8

2. FRONT END AND FM IF MATCHING ADJUSTMENT

1) Connect the GENESCO lead wires to the 75Ω FM ANTENNA TERMINALS of the Receiver as well as to the FM IF P.C. Board output as shown in Fig. 7.
2) Set the GENESCO to FM mode and adjust the vertical gain of GENESCO to obtain a 10 mm amplitude of the 0.3Vp-p calibration voltage on GENESCO Screen and set the GENESCO attenuator to 100 dB.
3) Set Receiver SELECTOR to FM AUTO, and tuning indicator needle to extreme right end of the dial.
4) Adjust the upper core of Front End IF Coil (Fig. 18) to obtain maximum wave height value of S Curve in Fig. 8, and adjust the lower core to obtain maximum noise level.
5) Make this adjustment again following FM Sensitivity Adjustment.

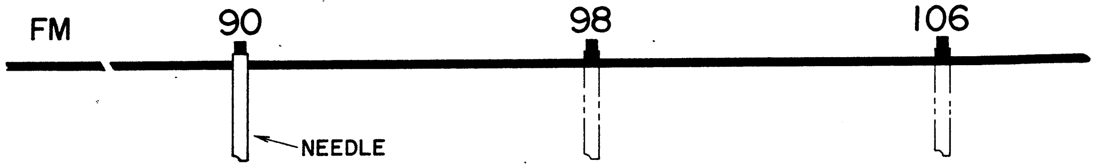


Fig. 9 INSTRUMENT CONNECTIONS

Ref. In making Tracking Adjustment, set dial to following positions.

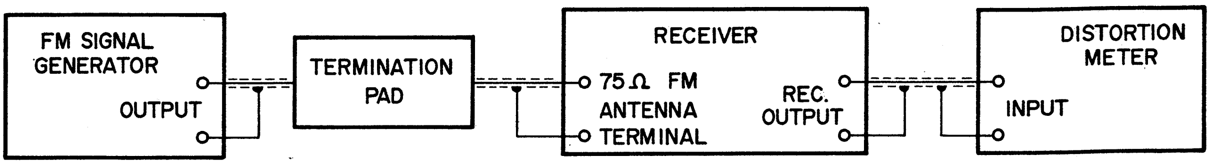


Fig. 10

FM S.G. Output	40 dB
Core (Low Range)	Lo
Trimmer Condenser (High Range)	TCo

Chart 4

Core (Low Range)	LR, LR, LA
Trimmer Condenser (High Range)	TCR, TCR, TCA
IF Coil (Mid Range)	IF
Discriminator Coil (Mid Range)	T2

Chart 5

3. TRACKING ADJUSTMENT

1) Connect the various measuring instruments as shown in Fig. 9.
2) Set the oscillation frequency of the FM SIGNAL GENERATOR (hereinafter referred to FM S.G.) to 90 MHz (400 Hz 100% internal modulation), and set the output of the FM S.G. to 46 dB. (Refer to Chart 4)
3) Set Receiver SELECTOR to FM AUTO, and tuning indicator needle to 90 MHz. (Refer to Fig. 10)
4) Adjust Core Lo of Front End (Fig. 18) until the distortion meter level is maximum and the distortion factor is minimum. (Refer to Chart 4)
5) Set the oscillation frequency of FM S.G. and tuning indicator needle to 106 MHz. (Refer to Fig. 10)
6) Adjust Trimmer Condenser TCo of Front End (Fig. 18) until the distortion meter level is maximum and the distortion factor is minimum. (Refer to Chart 4)

4. SENSITIVITY ADJUSTMENT

1) Carry out these adjustments after the previously described Tracking Adjustments have been completed.
2) Measuring instrument connections are the same as described in Tracking Adjustments.
3) Set the oscillation frequency of the FM S.G. to 90 MHz (400 Hz, 100% internal modulation), set Receiver SELECTOR to FM AUTO, and set the tuning indicator needle to 90 MHz. (Refer to Fig. 10)
4) Adjust the FM S.G. Attenuator to obtain a 3% distortion factor.
5) Adjust the cores of Front End (Fig. 18) until the distortion meter level is maximum and the distortion factor is minimum. (Refer to Chart 5)
6) Set the oscillation frequency of FM S.G. and tuning indicator needle to 106 MHz. (Refer to Fig. 10)
7) Adjust the FM S.G. Attenuator to obtain a 3% distortion factor.
8) Adjust Trimmer Condensers of Front End (Fig. 18) until the distortion meter level is maximum and the distortion factor is minimum. (Refer to Chart 5)
9) Set the oscillation frequency of FM S.G. and the tuning indicator needle to 98 MHz. (Refer to Fig. 10)
10) Adjust the FM S.G. Attenuator to obtain a 3% distortion factor.
11) Adjust the upper and lower cores of IF Coil in Front End (Fig. 18) and the lower core of FM-AM IF P.C. Board Discriminator Coil until the distortion meter level is maximum and the distortion factor is minimum. (Refer to Chart 5)
12) Repeat adjustments outlined in Item 3) through 11) at 90 MHz, 98 MHz and 106 MHz two or three times for highest sensitivity.

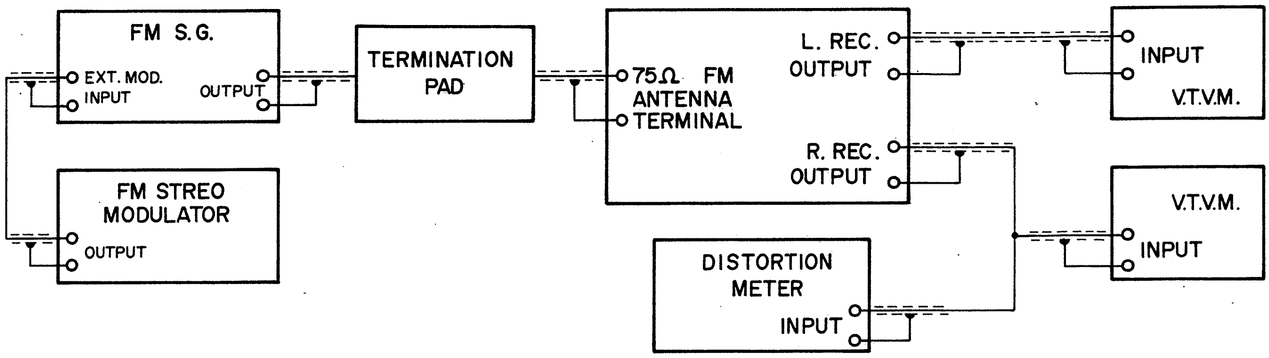


Fig. 11 INSTRUMENT CONNECTIONS

5. SIGNAL METER SENSITIVITY ADJUSTMENT

1) Supply a 98 MHz (400 Hz, 100% internal modulation) 60 dB signal to the Receiver from the FM S.G. Alignment is attained when the tuning meter indicator comes to the exact center of the meter.
2) Under the above conditions, adjust the core of Coil T1(GRN) of FM-AM IF P.C. Board to obtain maximum signal meter indication.

6. STEREO SEPARATION ADJUSTMENT

1) Connect the various measuring instruments as shown in Fig. 11.
2) Set the FM STEREO MODULATOR pilot signal 19 kHz to 10%, and the main signal 400 Hz (left channel + right channel) to 90% modulation, and supply this composite signal (ratio 9:1) to the FXT MOD. input terminal of the FM S.G.
3) Set the FM S.G. oscillation frequency to 98 MHz, and the Attenuator to 66 dB.
4) Set Receiver SELECTOR to FM AUTO, and the tuning indicator needle to 98 MHz to receive the FM S.G. Signal.
5) Set the output signal selector of FM STEREO MODULATOR to SUB.
6) Adjust the cores of MPX P.C. Board 19 kHz Filter L1(BLK) and 38 kHz Filter L2(WHT) until the distortion factor is minimum. (Refer to Fig. 12)
7) Set the output signal selector of FM STEREO MODULATOR to left channel.
8) Adjust the MPX Adjustment Volume located on rear panel of the Receiver until the right channel output level is minimum.

7. TUNING METER CENTER ADJUSTMENT

After completing the adjustments outlined in Parts 1 through 4 of this manual, set the FM S.G. Attenuator to non-output condition, and adjust the upper core of FM-AM IF P.C. Board Discriminator Coil T2 shown in Fig. 5 until the tuning indicator needle of tuning meter comes to the center.
Then set Receiver dial to 98 MHz, supply a 98 MHz (400 Hz, 100% internal modulation) 66 dB signal from the FM S.G., and fine adjust the lower core of Discriminator Coil T2 for minimum distortion factor.

8. MUTING LEVEL ADJUSTMENT (STEREO INDICATOR SENSITIVITY ADJUSTMENT)

1) Connect the various measuring instruments as shown in Fig. 11.
2) Set the FM S.G. oscillation frequency to 98 MHz (400 Hz 100% internal modulation) and Attenuator to non-output condition.
3) Set receiver dial to 98 MHz.
4) Adjust FM-AM IF P.C. Board semi-fixed resistor VR1 68 kB so that when the attenuation decreases and the Attenuator scale is at 23 dB, signal output is emitted at both channels.

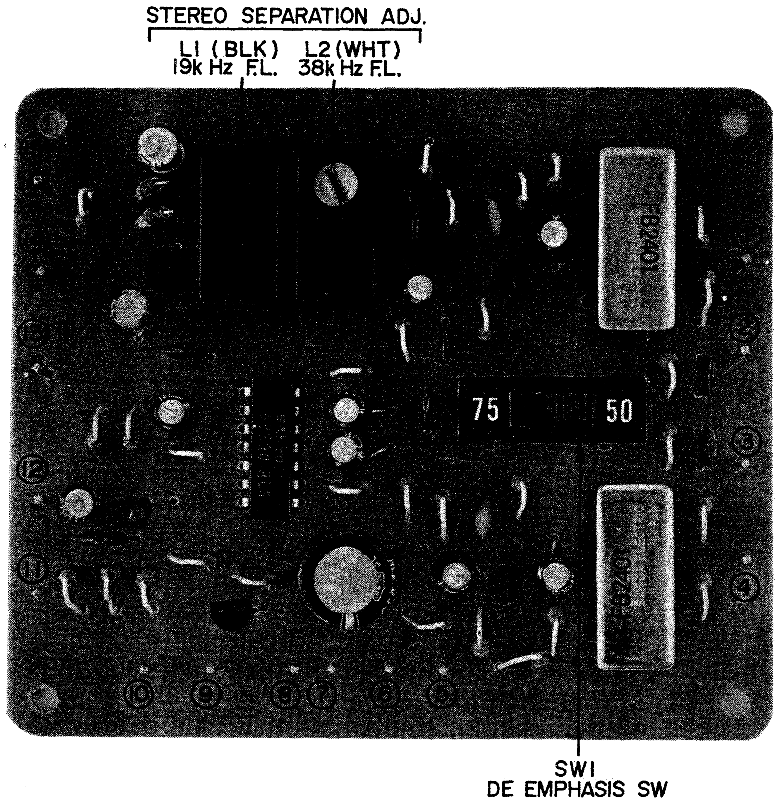

STEREO SEPARATION ADJ.
L1 (BLK) 19k Hz F.L.
L2 (WHT) 38k Hz F.L.
75
50
SW1
DE EMPHASIS SW

Fig. 12 MPX P.C. BOARD 94-5008

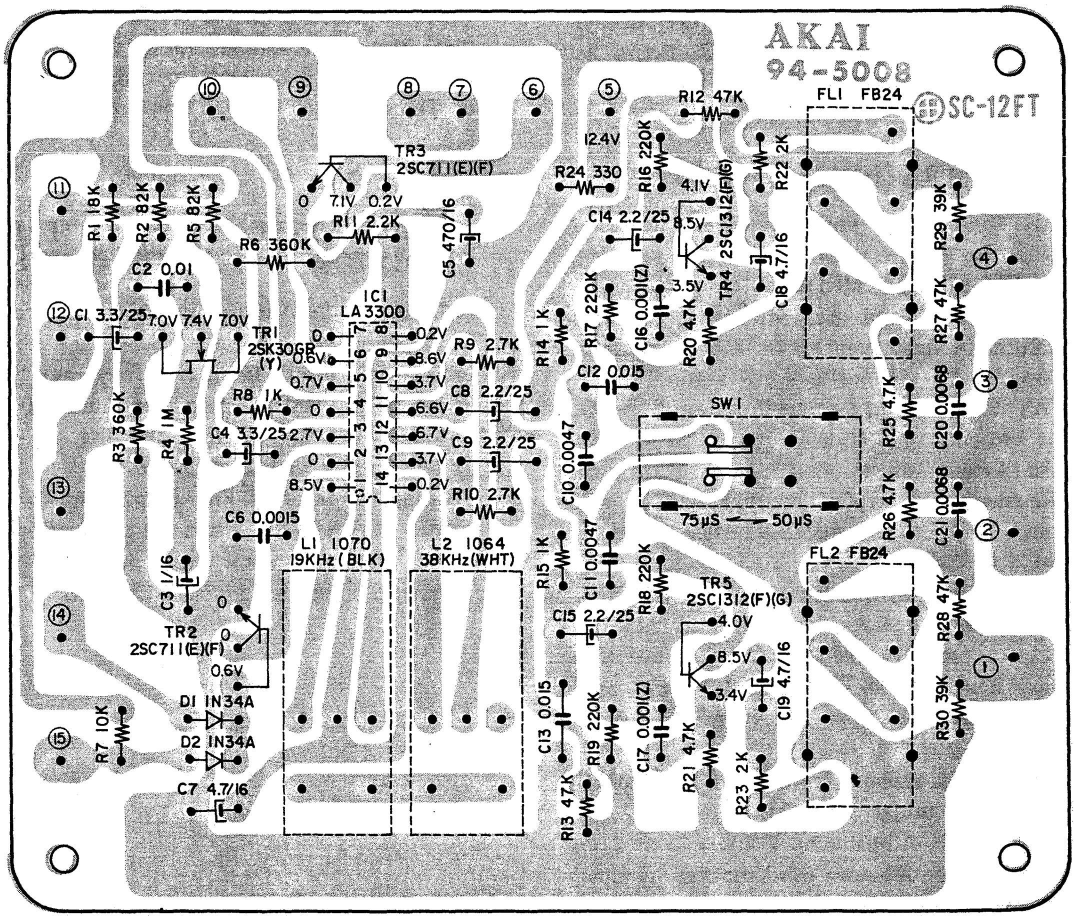
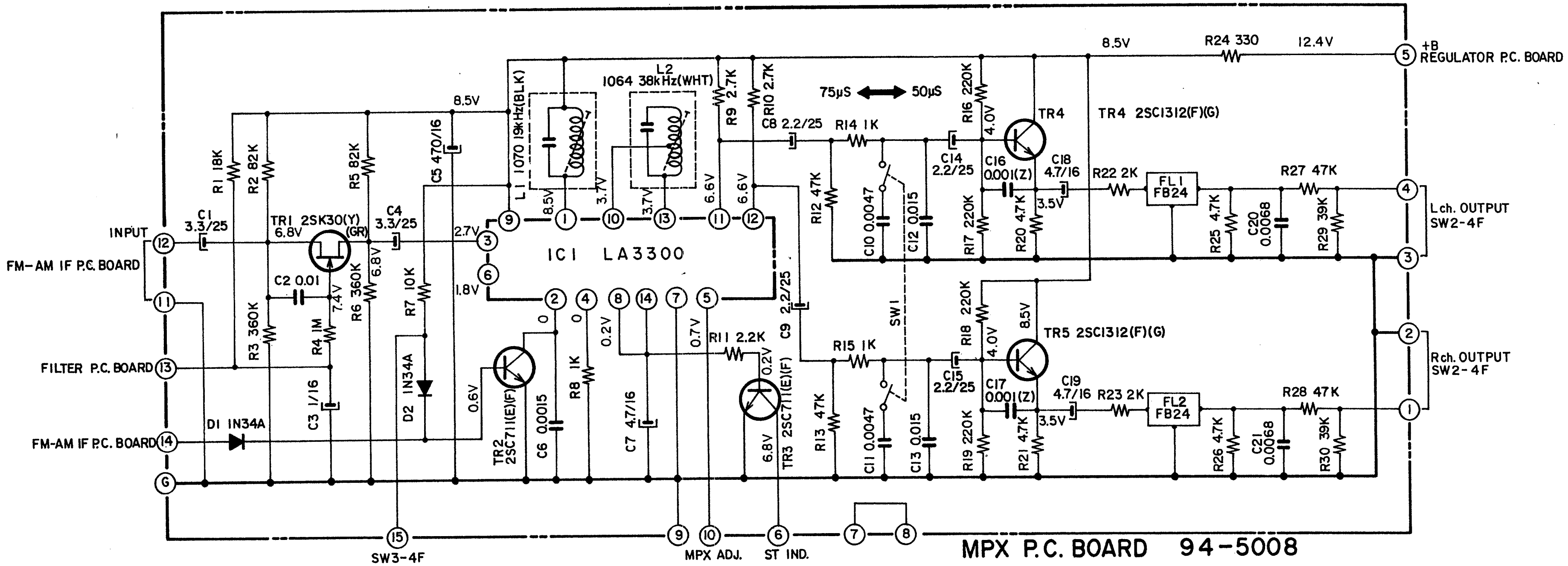

AKAI
94-5008
SC-12FT
R12 47K
FL1 FB24
12.4V
R16 220K
R22 2K
TR3
2SC711(E)(F)
0
7.1V
0.2V
R24 330
4.1V
TR4 2SC1312(F)(G)
R1 18K
R2 82K
R5 82K
R11 2.2K
C5 470/16
C14 2.2/25
8.5V
3.5V
R29 39K
R6 360K
C18 4.7/16
C2 0.01
R17 220K
C16 0.001(Z)
R20 4.7K
R27 47K
IC1
LA3300
C1 3.3/25
7.0V
7.4V
7.0V
TR1
2SK30GR (Y)
0.6V
0.7V
0.2V
8.6V
3.7V
6.6V
6.7V
3.7V
0.2V
2.7V
8.5V
R9 2.7K
R14 1K
C12 0.015
R8 1K
C8 2.2/25
C9 2.2/25
R10 2.7K
R25 4.7K
C20 0.0068
R3 360K
R4 1M
C4 3.3/25
C10 0.0047
SW1
75μS — 50μS
R26 4.7K
C21 0.0068
C6 0.0015
L1 1070
19KHz (BLK)
L2 1064
38KHz (WHT)
R15 1K
C11 0.0047
R18 220K
FL2 FB24
C3 1/16
TR5
2SC1312(F)(G)
4.0V
C15 2.2/25
R28 47K
TR2
2SC711(E)(F)
0
0
0.6V
8.5V
C19 4.7/16
3.4V
D1 1N34A
D2 1N34A
C13 0.015
R19 220K
C17 0.001(Z)
R30 39K
R7 10K
R21 4.7K
R23 2K
C7 4.7/16
R13 4.7K
①
②
③
④
⑤
⑥
⑦
⑧
⑨
⑩
⑪
⑫
⑬
⑭
⑮

Fig. 13 MPX P.C. BOARD 94-5008 (Rev.)


INPUT
FM-AM IF P.C. BOARD
FILTER P.C. BOARD
FM-AM IF P.C. BOARD
C1 3.3/25
R1 18K
R2 82K
R3 360K
TR1 2SK30(Y) (GR)
6.8V
C2 0.01
7.4V
R4 1M
C3 1/16
D1 1N34A
R5 82K
R6 360K
6.8V
C4 3.3/25
R7 10K
D2 1N34A
C5 470/16
8.5V
2.7V
1.8V
0.6V
TR2 2SC711(E)(F)
C6 0.0015
R8 1K
0
0
0.2V
C7 4.7/16
0.7V
R11 2.2K
0.2V
6.8V
TR3 2SC711(E)(F)
L1 1070 19kHz(BLK)
8.5V
3.7V
3.7V
L2 1064 38kHz(WHT)
6.6V
6.6V
IC1 LA3300
R9 2.7K
R10 2.7K
C8 2.2/25
C9 2.2/25
R14 1K
R15 1K
R12 47K
R13 47K
C10 0.0047
C11 0.0047
C12 0.015
C13 0.015
SW1
75μS 50μS
C14 2.2/25
C15 2.2/25
R16 220K
R17 220K
R18 220K
R19 220K
4.0V
4.0V
TR4
TR4 2SC1312(F)(G)
TR5 2SC1312(F)(G)
8.5V
C16 0.001(Z)
C17 0.001(Z)
R20 4.7K
R21 4.7K
3.5V
3.5V
C18 4.7/16
C19 4.7/16
R22 2K
R23 2K
FL1 FB24
FL2 FB24
R25 4.7K
R26 4.7K
C20 0.0068
C21 0.0068
R27 47K
R28 47K
R29 39K
R30 39K
8.5V
R24 330
12.4V
+B REGULATOR P.C. BOARD
Lch. OUTPUT SW2-4F
Rch. OUTPUT SW2-4F
SW3-4F
MPX ADJ.
ST IND.
G

MPX P.C. BOARD 94-5008

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN Ω 1/4W(J)
ALL CAPACITORS IN μF 50W.V.(J)

SCHEMATIC 2

VII. AM TUNER SECTION ADJUSTMENTS

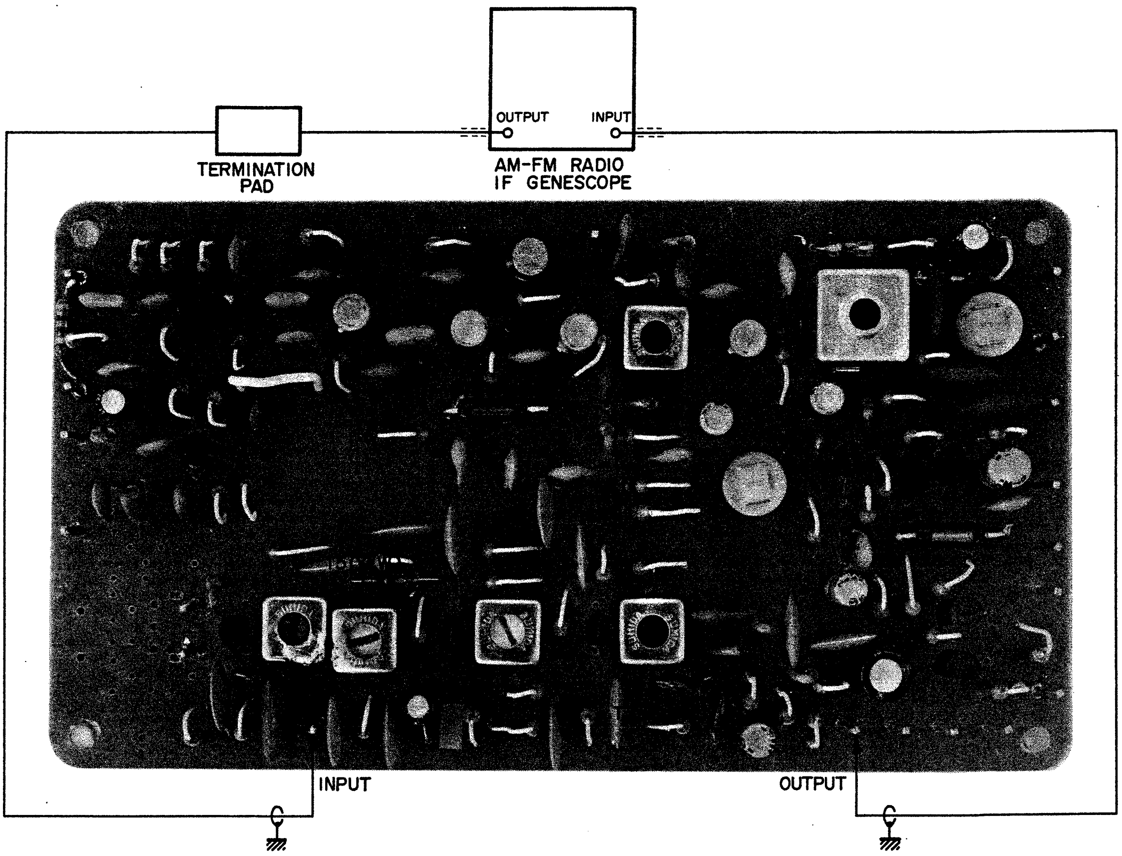


Fig. 14 INSTRUMENT CONNECTIONS

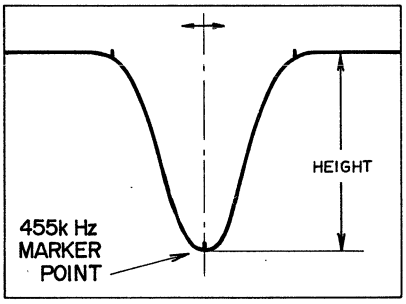


Fig. 15

Vertical Gain	0.3Vp-p to 1 cm
GENESCO Output Level	60 dB
Single Peaked Curve Height	4 cm

Chart 6

1. AM IF CIRCUIT ADJUSTMENT

1) Connect the AM-FM Radio IF GENESCOPE (hereinafter referred to as GENESCO) lead wires to input terminal as well as output terminal of the FM-AM IF P.C. Board as shown in Fig. 14.
2) Set GENESCO to AM mode and adjust vertical gain. (Refer to Chart 6)
3) Set Receiver SELECTOR to AM and set the tuning indicator needle to extreme right end of the dial.

NOTE: A noise element should not enter the single peaked curve shown in Fig. 15.

4) Adjust output level of GENESCO. (Refer to Chart 6)
5) Adjust the cores of FM-AM IF P.C. Board IFT T7(BLK) (refer to Fig. 14) so that the 455 kHz marker point of the single peaked curve displays maximum amplitude as shown in Fig. 15.
6) Adjust the cores of FM-AM IF P.C. Board IFT T6(WHT) and T5(YLW) (refer to Fig. 14) so that the left and right rise up characteristics of the single peaked curve shown in Fig. 15 are identical from the center (indicated by the dotted line in the figure).
7) In making this adjustment the single peaked curve marker point will differ according to the rank of the ceramic filter.

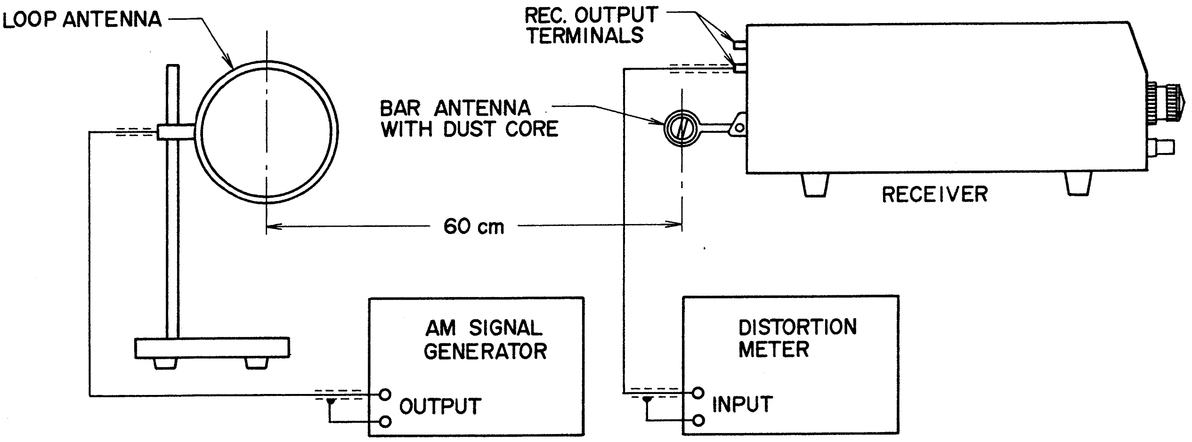

LOOP ANTENNA
REC. OUTPUT TERMINALS
BAR ANTENNA WITH DUST CORE
RECEIVER
60 cm
AM SIGNAL GENERATOR
OUTPUT
DISTORTION METER
INPUT

Fig. 16 INSTRUMENT CONNECTIONS

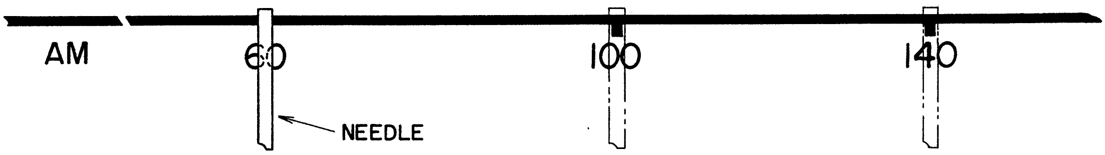

AM
60
100
140
NEEDLE

Fig. 17

Ref. In making Tracking Adjustments, set dial to following positions.

2. TRACKING ADJUSTMENT

1) Connect the various measuring instruments as shown in Fig. 16.
2) Set the oscillation frequency of the AM SIGNAL GENERATOR (hereinafter referred to as AM S.G.) to 600 kHz (400 Hz 30% internal modulation) and adjust the AM S.G. Attenuator, (Refer to Chart 7)
3) Set Receiver SELECTOR to AM and tuning indicator needle to 600 kHz. (Refer to Fig. 17)
4) Adjust the core of FM-AM IF P.C. Board Tracking Adjustment Coil T4(RED) in Fig. 5 until the distortion meter level is maximum and the distortion factor is minimum.
5) Set the oscillation frequency of AM S.G. and tuning indicator needle of Receiver to 1,400 kHz. (Refer to Fig. 17)
6) Adjust Front End Trimmer Condenser in Fig. 18 until the distortion meter level is maximum and the distortion factor is minimum. (Refer to Chart 7)
7) Repeat adjustments outlined in Item 2) through 6) two or three times for minimum tracking error.

AM S.G. Output	60 dB
Core (Low Range)	T4
Trimmer Condenser (High Range)	TC1

Chart 7

Bar Antenna Dust Core (Low Range)	Fig. 16
Trimmer Condenser (High Range)	TC1

Chart 8

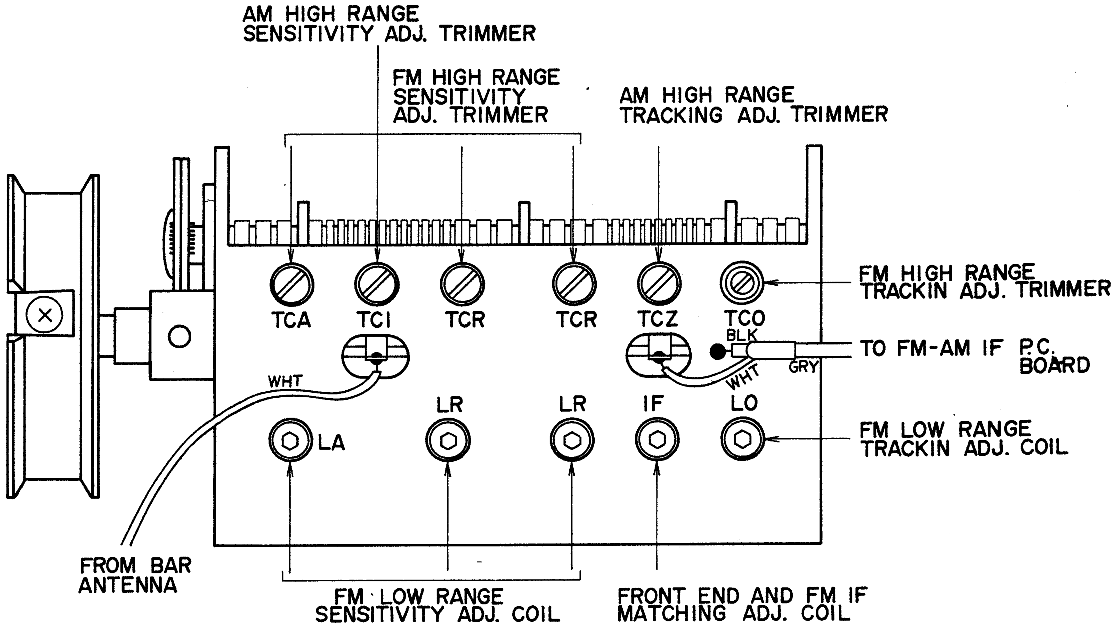

AM HIGH RANGE SENSITIVITY ADJ. TRIMMER
FM HIGH RANGE SENSITIVITY ADJ. TRIMMER
AM HIGH RANGE TRACKING ADJ. TRIMMER
TCA
TCI
TCR
TCR
TCZ
TCO
BLK
FM HIGH RANGE TRACKIN ADJ. TRIMMER
TO FM-AM IF P.C. BOARD
GRY
WHT
WHT
LR
LR
IF
LO
LA
FM LOW RANGE TRACKIN ADJ. COIL
FROM BAR ANTENNA
FM LOW RANGE SENSITIVITY ADJ. COIL
FRONT END AND FM IF MATCHING ADJ. COIL

Fig. 18

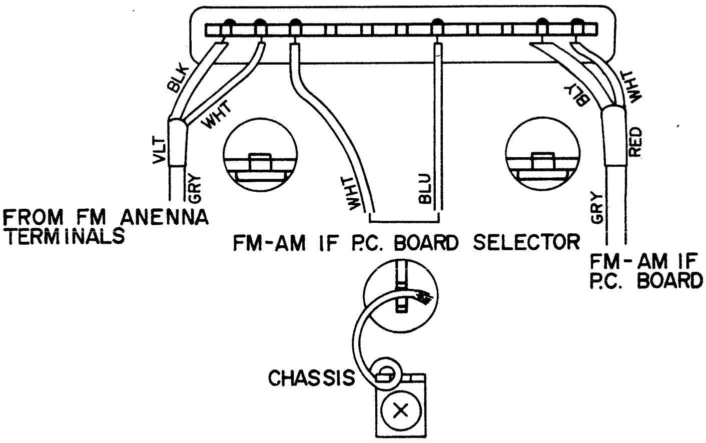

BLK
WHT
VLT
GRY
WHT
BLU
BLK
WHT
RED
GRY
FROM FM ANENNA TERMINALS
FM-AM IF P.C. BOARD SELECTOR
FM-AM IF P.C. BOARD
CHASSIS

Fig. 19

3. SENSITIVITY ADJUSTMENT

1) Carry out these adjustments after the previously described Tracking Adjustments have been completed.
2) Measuring instrument connections are the same as described in Tracking Adjustments. (Refer to Fig. 16)
3) Set the oscillation frequency of the AM S.G. to 600 kHz (400 Hz 30% internal modulation). Set Receiver SELECTOR to AM and the tuning indicator needle to 600 kHz. (Refer to Fig. 17)
4) Adjust AM S.G. Attenuator to obtain a 10% distortion factor.
5) Adjust dust core of Bar Antenna shown in Fig. 16 until the distortion meter level is maximum and the distortion factor is minimum.
6) Set the oscillation frequency of AM S.G. and tuning indicator needle of Receiver to 1,400 kHz. (Refer to Fig. 17)
7) Adjust AM S.G. Attenuator to obtain a 10% distortion factor.
8) Adjust Front End trimmer condenser in Fig. 18 until the distortion meter level is maximum and the distortion factor is minimum. (Refer to Chart 8)
9) Repeat adjustment outlined in Items 3) through 8) at 600 kHz and 1,400 kHz two or three times for highest sensitivity.

VIII. TUNING CORD THREADING

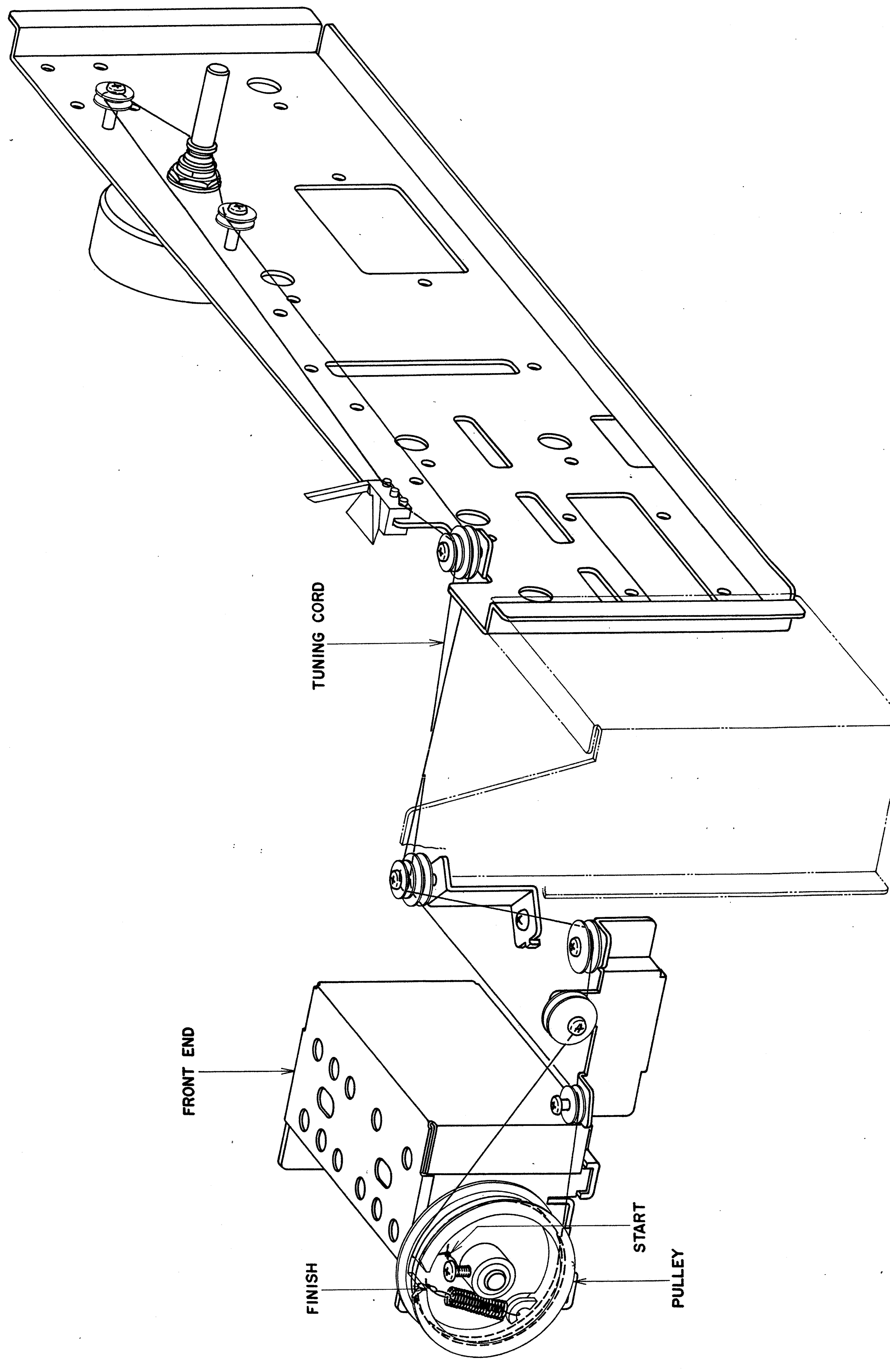
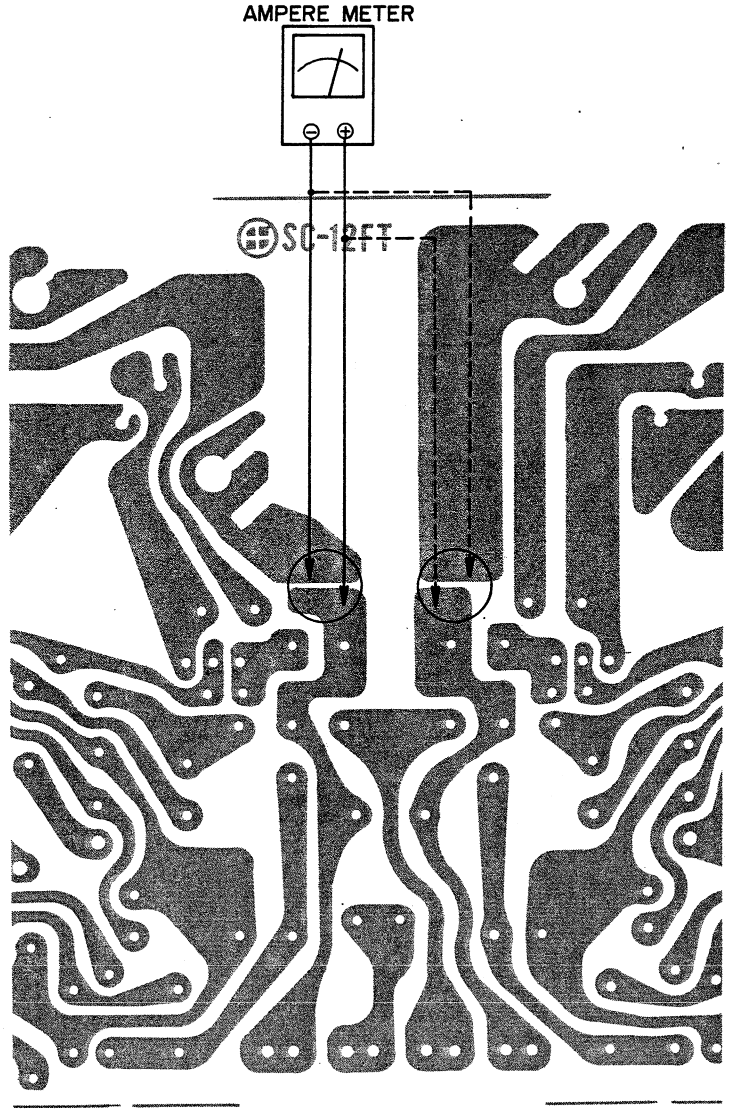

TUNING CORD
FRONT END
START
FINISH
PULLEY

Fig. 20 Model AS-970

IX. POWER AMPLIFIER ADJUSTMNTS



○ Indicates Soldering Points

Fig. 21

1. CURRENT ADJUSTMENT AT NON-INPUT

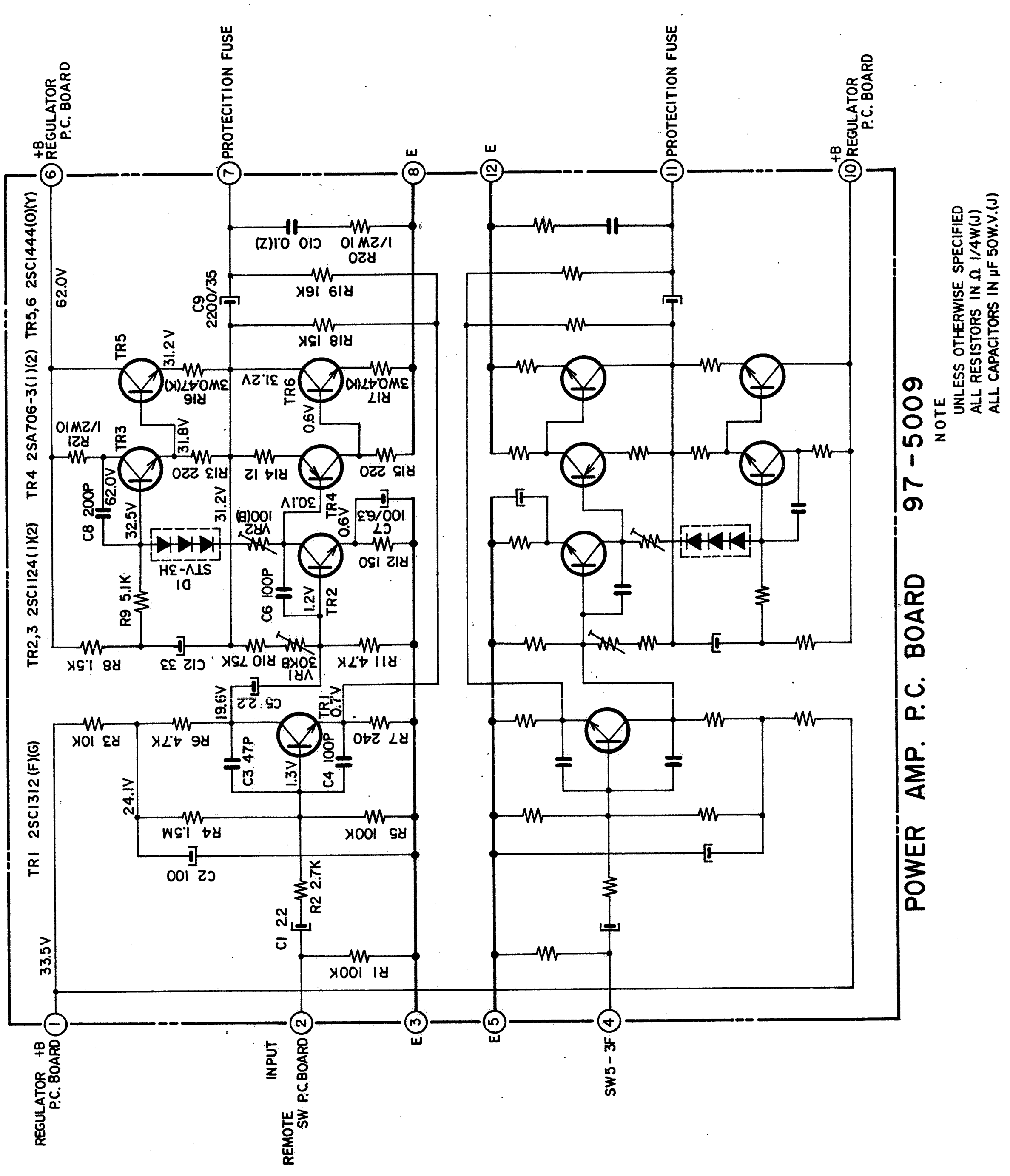
* Turn Volume Control to minimum and proceed as follows:

1) Remove solder from soldering point of Power Amp. P.C. Board shown in Fig. 21.
2) Connect a 50 to 100 mA scale Ampere Meter as shown in Fig. 21. (Be sure to match Ampere Meter polarities).
3) Adjust Power Amp. P.C. Board semi-fixed resistor VR-2 100B shown in Fig. 22 to obtain an Ampere Meter indication of 40 mA.

2. VOLTAGE ADJUSTMENT BETWEEN POWER TRANSISTORS C-E

* (Refer to Schematic Diagram)

1) Connect Voltage Meter to Power Amp. P.C. Board TR6 collector and terminal ⑧ shown in Fig. 22.
2) Adjust Power Amp. P.C. Board semi-fixed resistor VR1 30 kB shown in Fig. 22 so that the Voltage Meter indication is 1/2 of the supply voltage value.


TR1 2SC1312(F)(G)
TR2,3 2SC1124(1)(2)
TR4 2SA706-3(1)(2)
TR5,6 2SC1444(O)(Y)
REGULATOR +B P.C. BOARD
INPUT
REMOTE SW P.C.BOARD
SW5-3F
E
+B REGULATOR P.C. BOARD
PROTECITION FUSE
33.5V
62.0V
24.1V
19.6V
1.3V
0.7V
1.2V
32.5V
62.0V
31.8V
31.2V
30.1V
0.6V
31.2V
0.6V
31.2V
R1 100K
R2 2.7K
R3 10K
R4 1.5M
R5 100K
R6 4.7K
R7 240
R8 1.5K
R9 5.1K
R10 75K
R11 4.7K
R12 150
R13 220
R14 12
R15 220
R16 3W0.47(K)
R17 3W0.47(K)
R18 15K
R19 16K
R20 1/2W10
R21 1/2W10
C1 2.2
C2 100
C3 47P
C4 100P
C5 2.2
C6 100P
C7 100/6.3
C8 200P
C9 2200/35
C10 0.1(Z)
C12 33
VR1 30KB
VR2 100(B)
D1 STV-3H
TR1
TR2
TR3
TR4
TR5
TR6
1
2
3
4
5
6
7
8
10
11
12

POWER AMP. P.C. BOARD 97-5009

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN Ω 1/4W(J)
ALL CAPACITORS IN µF 50W.V.(J)

SCHEMATIC 3

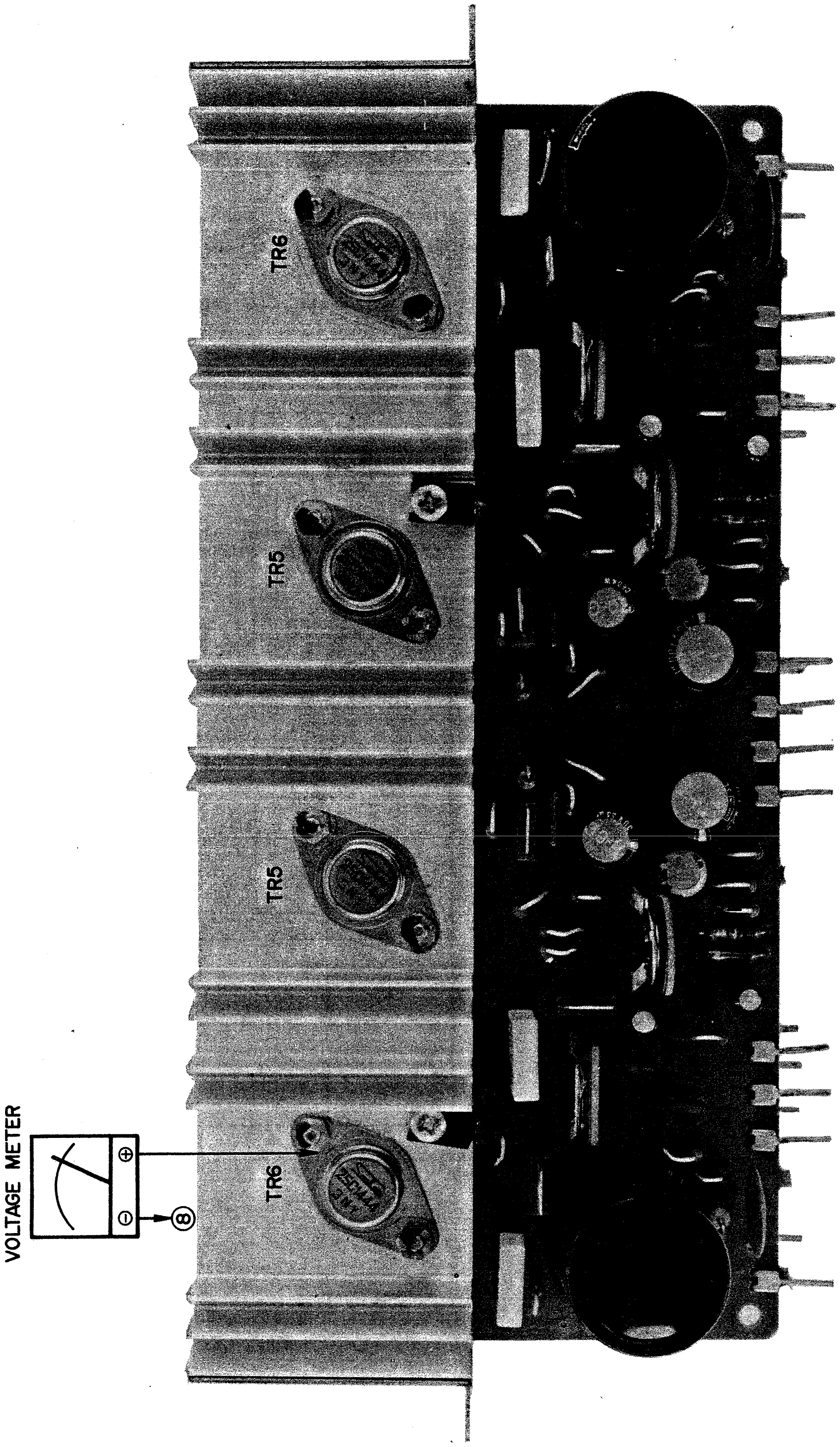

TR6
TR5
TR5
TR6
VOLTAGE METER
⊕
⊖
8

Fig. 22

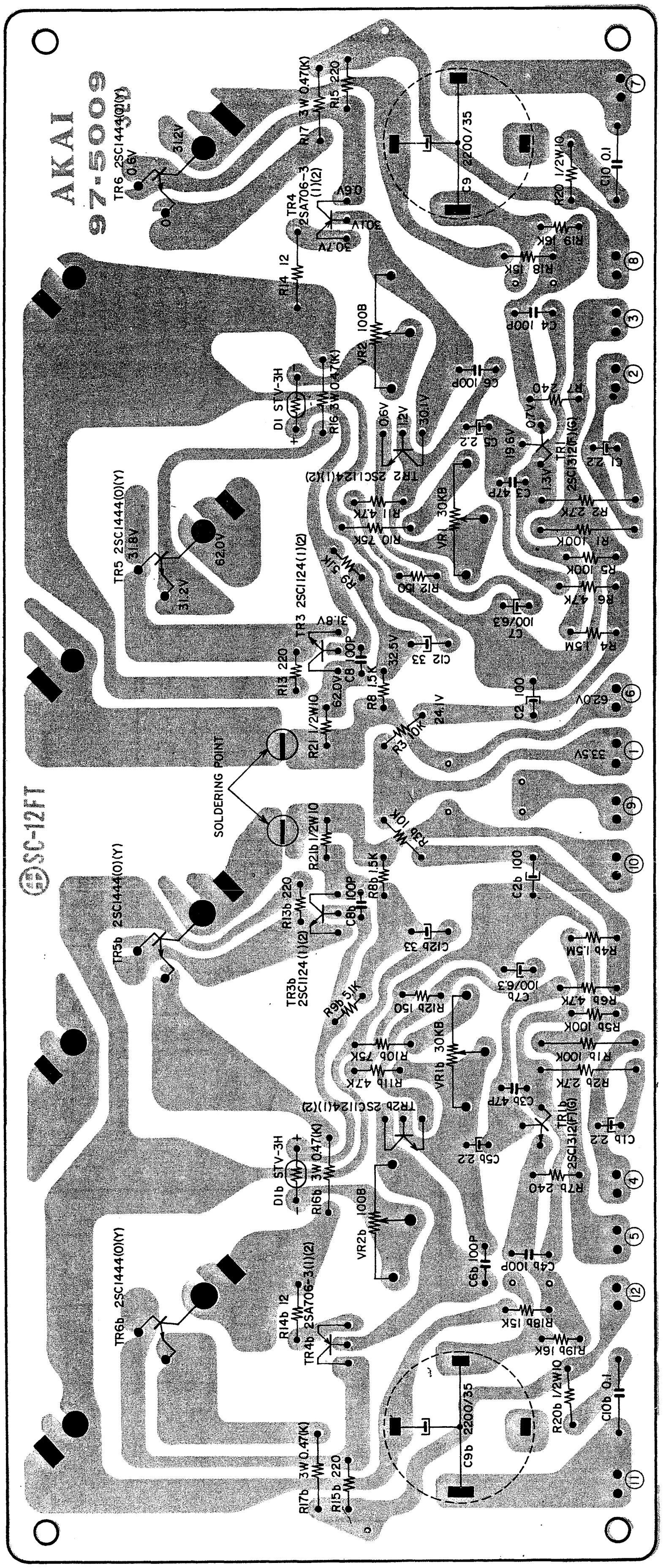
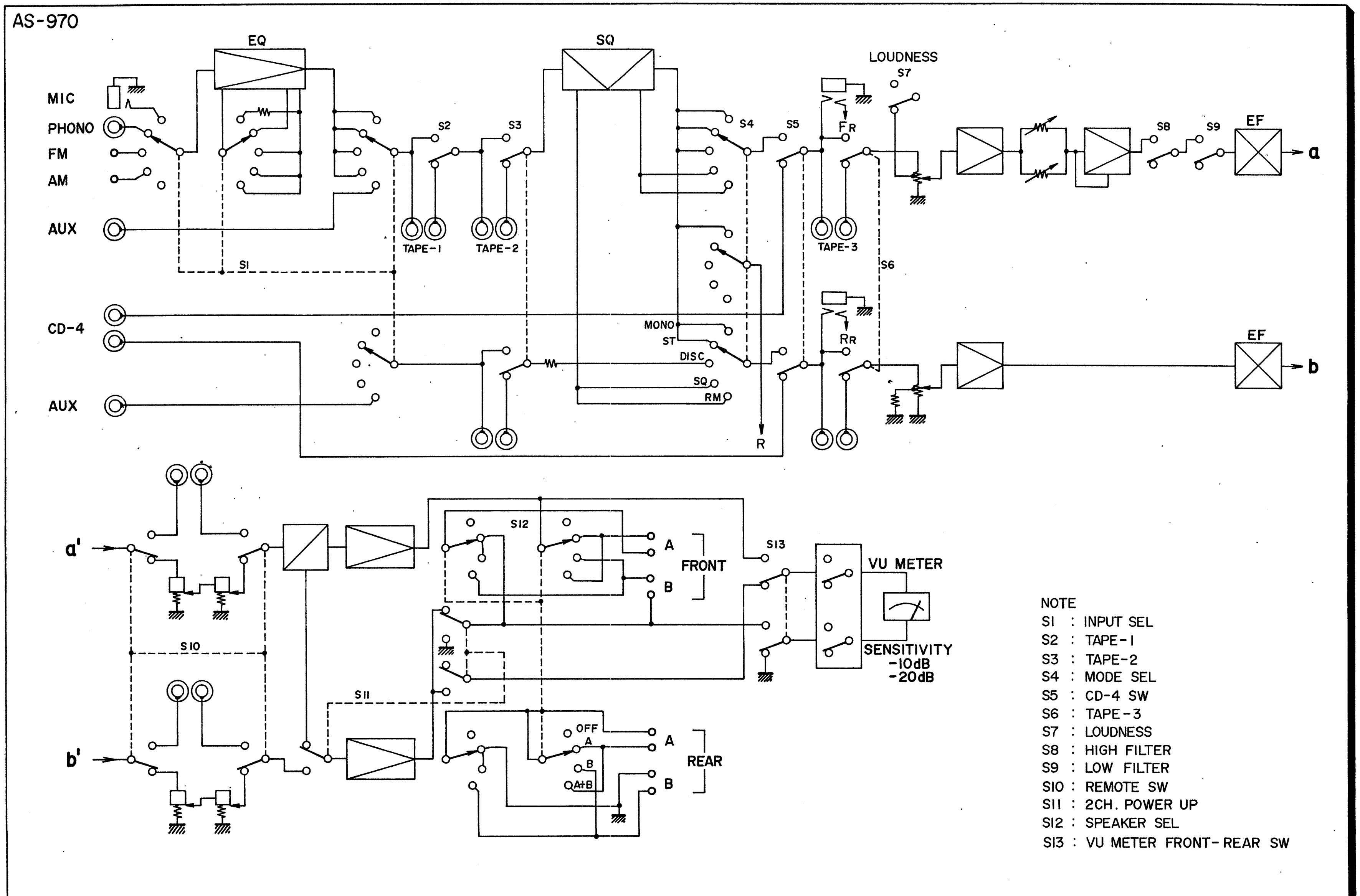

AKAI
97-5009
SC-12FT
SOLDERING POINT
TR6 2SC1444(O)(Y)
TR5 2SC1444(O)(Y)
TR4 2SA706-3 (1)(2)
TR3 2SC1124(1)(2)
TR2 2SC1124(1)(2)
TR1 2SC1312(F)(G)
D1 STV-3H
C9 2200/35
VR1 30KB
VR2 100B
R16 3W 0.47(K)
R17 3W 0.47(K)
R15 220
R14 12
R13 220
R21 1/2W10
R20 1/2W10
R19 16K
R18 15K
R1 100K
R2 2.7K
R3 10K
R4 1.5M
R5 100K
R6 4.7K
R7 240
R8 1.5K
R9 5.1K
R10 75K
R11 4.7K
R12 150
C1 2.2
C2 100
C3 47P
C4 100P
C5 2.2
C6 100P
C7 100/6.3
C8 100P
C10 0.1
C12 33
62.0V
33.5V
31.8V
31.2V
30.7V
30.1V
24.1V
TR6b 2SC1444(O)(Y)
TR5b 2SC1444(O)(Y)
TR4b 2SA706-3(1)(2)
TR3b 2SC1124(1)(2)
TR2b 2SC1124(1)(2)
TR1b 2SC1312(F)(G)
D1b STV-3H
C9b 2200/35
VR1b 30KB
VR2b 100B
①
②
③
④
⑤
⑥
⑦
⑧
⑨
⑩
⑪
⑫

Fig. 23


AS-970
EQ
SQ
LOUDNESS
S7
MIC
PHONO
FM
AM
AUX
S1
S2
S3
S4
S5
S6
S8
S9
EF
a
b
TAPE-1
TAPE-2
TAPE-3
FR
RR
CD-4
AUX
MONO
ST
DISC
SQ
RM
R
a'
b'
S10
S11
S12
S13
A
B
FRONT
OFF
A
B
A+B
REAR
VU METER
SENSITIVITY
-10dB
-20dB

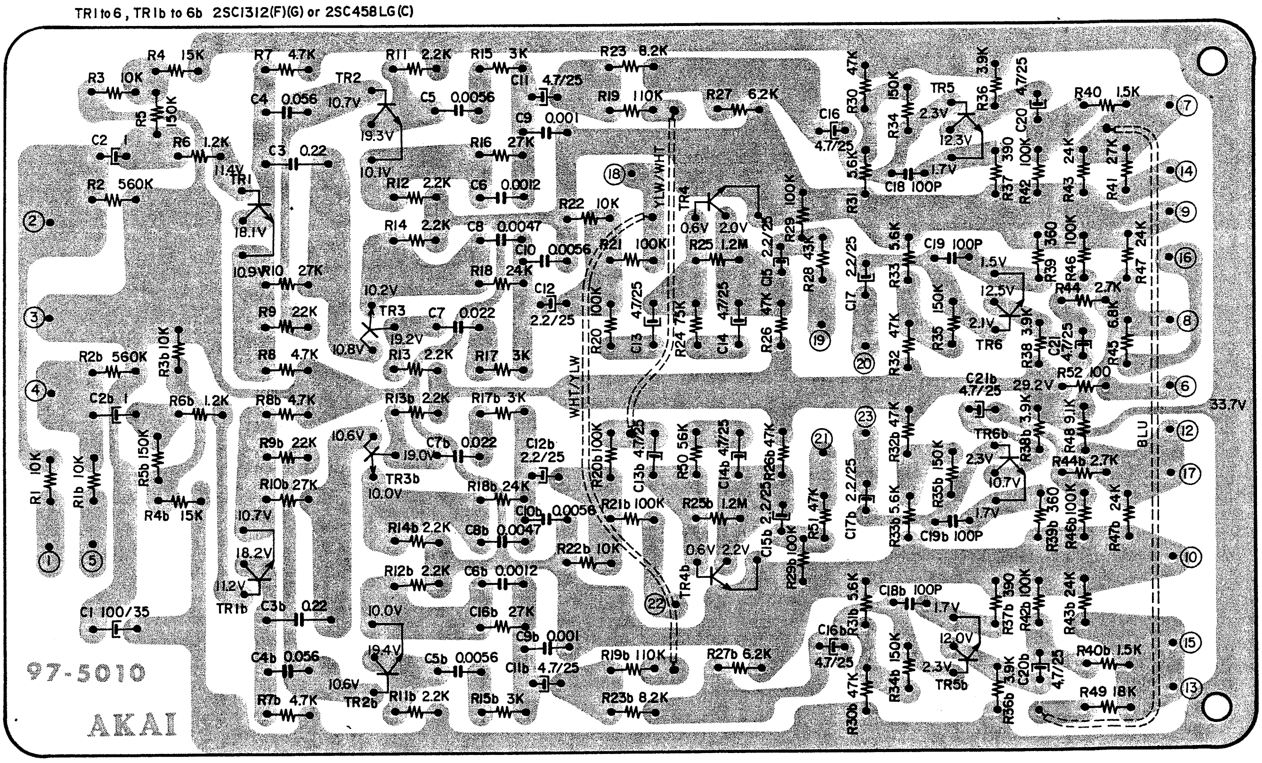
NOTE
S1 : INPUT SEL
S2 : TAPE-1
S3 : TAPE-2
S4 : MODE SEL
S5 : CD-4 SW
S6 : TAPE-3
S7 : LOUDNESS
S8 : HIGH FILTER
S9 : LOW FILTER
S10 : REMOTE SW
S11 : 2CH. POWER UP
S12 : SPEAKER SEL
S13 : VU METER FRONT-REAR SW

AS-970. AMP. SECTION BLOCK DIAGRAM
(LEFT CHANNEL ONLY)

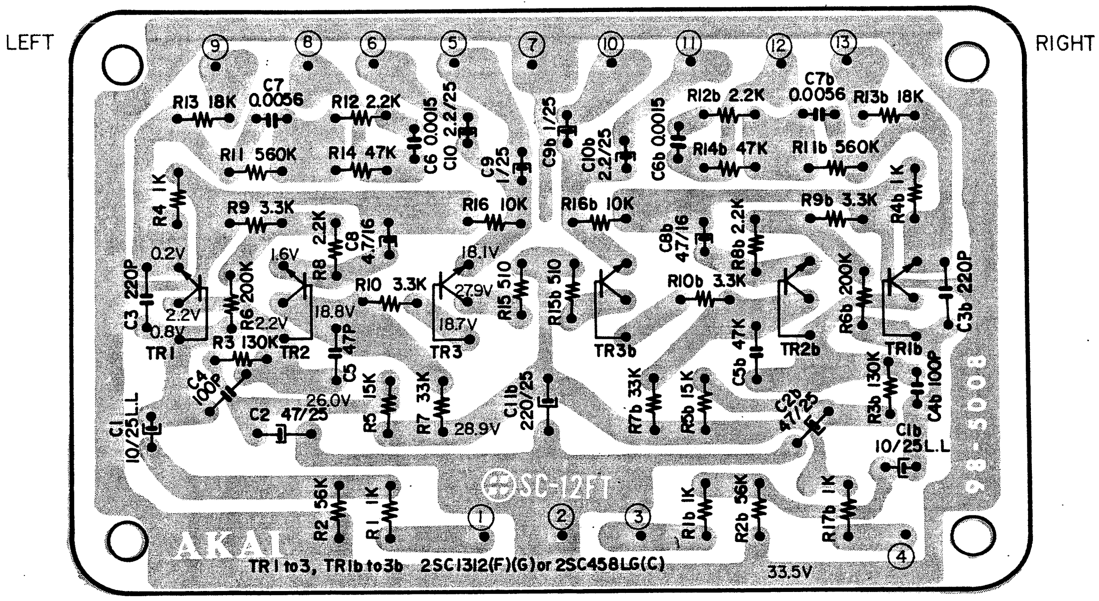
X. COMPOSITE VIEWS OF COMPONENTS

1. SQ P.C. BOARD 97-5010

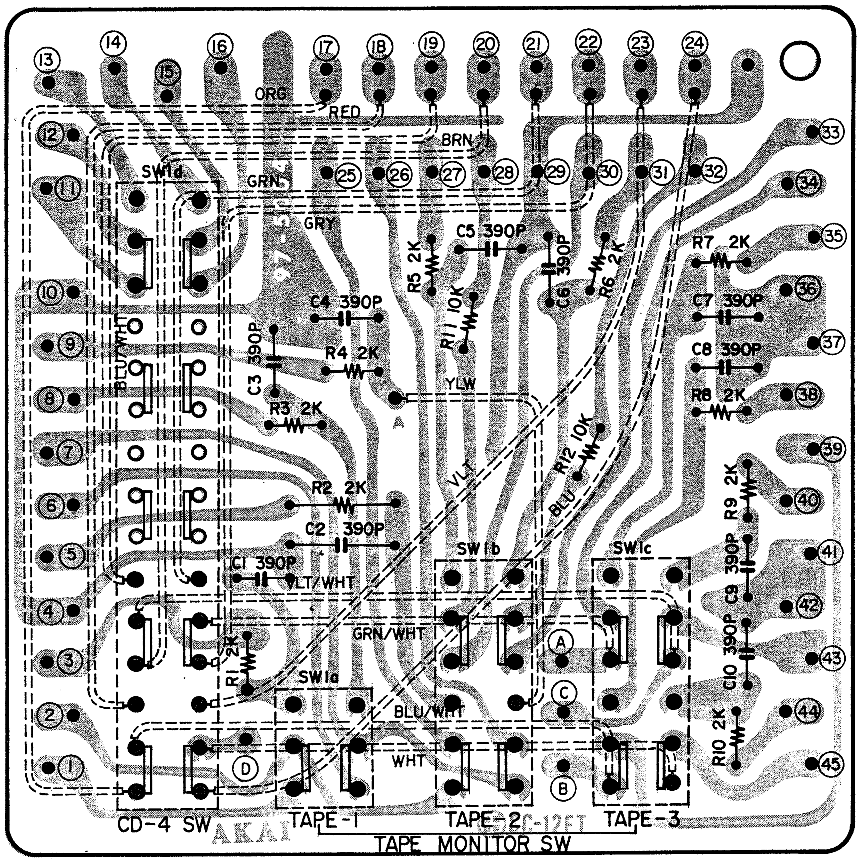
TR1 to 6, TR1b to 6b 2SC1312(F)(G) or 2SC458LG(C)


97-5010
AKAI
R3 10K
R4 15K
R5 150K
R6 1.2K
R2 560K
C2 1
TR1
TR2
TR3
TR4
TR5
TR6
TR1b
TR2b
TR3b
TR4b
TR5b
TR6b
R7 4.7K
R11 2.2K
R15 3K
R23 8.2K
R19 110K
R27 6.2K
R40 1.5K
R49 18K
C1 100/35
R1 10K
R1b 10K
YLW/WHT
WHT/YLW
BLU
33.7V
①
②
③
④
⑤
⑥
⑦
⑧
⑨
⑩
⑫
⑬
⑭
⑮
⑯
⑰
⑱
⑲
⑳
㉑
㉒
㉓

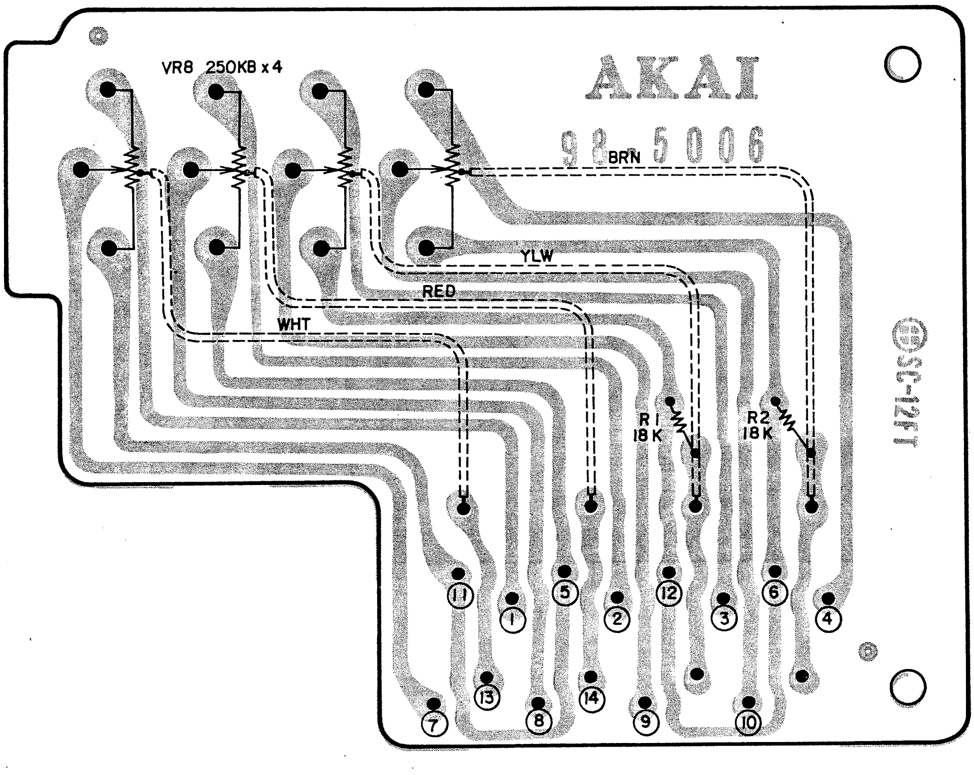
2. EQ P.C. BOARD 98-5008


LEFT
RIGHT
⑨
⑧
⑥
⑤
⑦
⑩
⑪
⑫
⑬
R13 18K
C7 0.0056
R12 2.2K
R11 560K
R14 47K
R4 1K
R9 3.3K
R16 10K
R16b 10K
R10 3.3K
R15 510
R15b 510
R10b 3.3K
R9b 3.3K
R4b 1K
C3 220P
C3b 220P
TR1
TR2
TR3
TR3b
TR2b
TR1b
R3 130K
C4 100P
C2 47/25
C1 10/25L.L
C1b 10/25L.L
C11b 220/25
R2 56K
R1 1K
R1b 1K
R2b 56K
R17b 1K
SC-12FT
AKAI
98-5008
TR1 to3, TR1b to3b 2SC1312(F)(G)or 2SC458LG(C)
33.5V
①
②
③
④

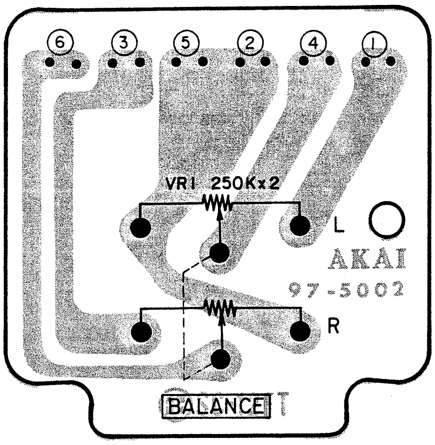
3. TAPE SW. P.C. BOARD 97-5004


⑬
⑭
⑮
⑯
⑰
⑱
⑲
⑳
㉑
㉒
㉓
㉔
ORG
RED
BRN
GRN
GRY
SW1d
⑫
⑪
⑩
⑨
⑧
⑦
⑥
⑤
④
③
②
①
BLU/WHT
㉕
㉖
㉗
㉘
㉙
㉚
㉛
㉜
㉝
㉞
㉟
㊱
㊲
㊳
㊴
㊵
㊶
㊷
㊸
㊹
㊺
C5 390P
R5 2K
C6 390P
R6 2K
R7 2K
C7 390P
C8 390P
R8 2K
C4 390P
R11 10K
C3 390P
R4 2K
YLW
R3 2K
A
R12 10K
VLT
BLU
R9 2K
R2 2K
C2 390P
C9 390P
C1 390P
VLT/WHT
SW1b
SW1c
GRN/WHT
Ⓐ
R1 2K
SW1a
BLU/WHT
Ⓒ
C10 390P
R10 2K
Ⓓ
WHT
Ⓑ
CD-4 SW
AKAI
TAPE-1
TAPE-2
SC-12FT
TAPE-3
TAPE MONITOR SW

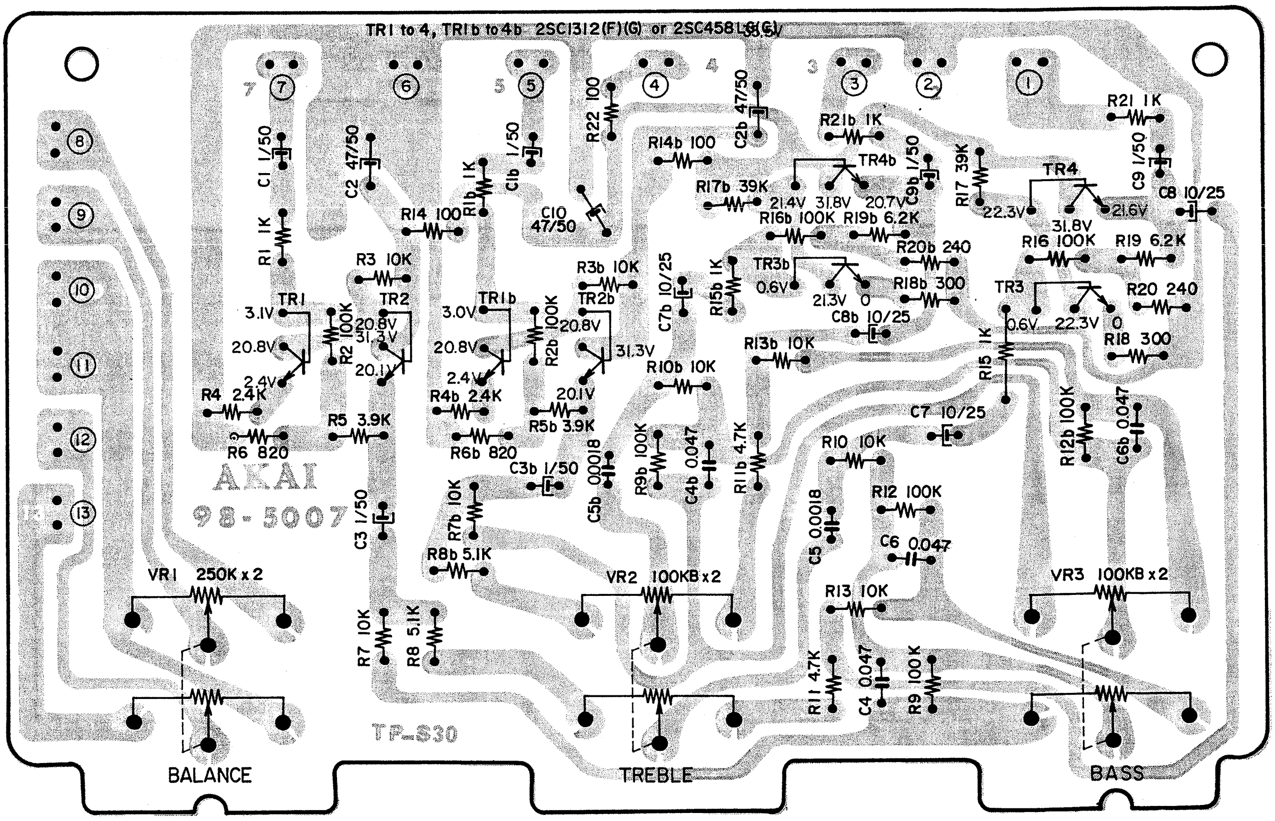
4. VOLUME CONTROL P.C. BOARD 98-5006


VR8 250KB x 4
AKAI
98 5006
BRN
YLW
RED
WHT
SC-12FT
R1 18K
R2 18K
⑪
①
⑤
②
⑫
③
⑥
④
⑬
⑭
⑦
⑧
⑨
⑩

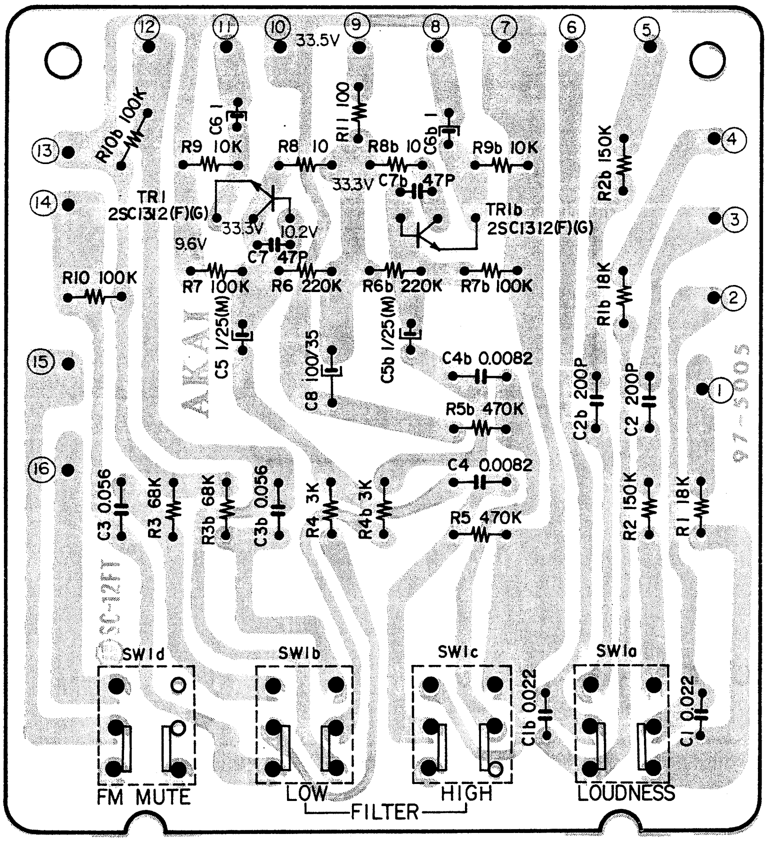
5. BALANCE P.C. BOARD 97-5002


⑥ ③ ⑤ ② ④ ①
VR1 250Kx2
L
R
AKAI
97-5002
BALANCE

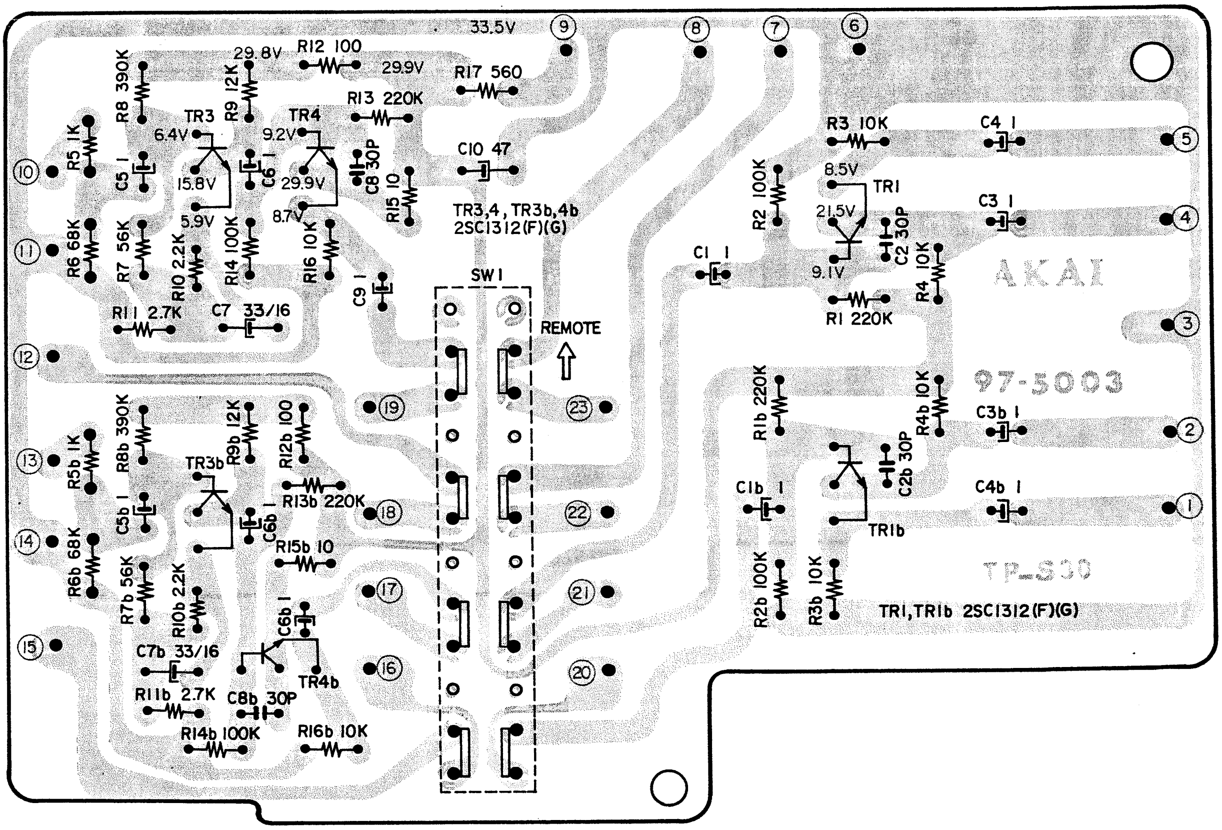
6. TONE CONTROL P.C. BOARD 98-5007


TR1 to 4, TR1b to 4b 2SC1312(F)(G) or 2SC458LG(G)
33.5V
⑦ ⑥ ⑤ ④ ③ ② ①
⑧ ⑨ ⑩ ⑪ ⑫ ⑬
C1 1/50
C2 47/50
R1 1K
R14 100
R1b 1K
C1b 1/50
C10 47/50
R22 100
R14b 100
C2b 47/50
R21b 1K
TR4b
C9b 1/50
R17 39K
R21 1K
C9 1/50
TR4
C8 10/25
R17b 39K
21.4V 31.8V 20.7V
R16b 100K R19b 6.2K
22.3V 31.8V 21.6V
R20b 240
R16 100K
R19 6.2K
R3 10K
TR1
TR2
3.1V
20.8V
R2 100K
20.8V
31.3V
20.1V
2.4V
TR1b
3.0V
20.8V
R2b 100K
TR2b
20.8V
31.3V
2.4V
20.1V
R3b 10K
C7b 10/25
R15b 1K
TR3b
0.6V
21.3V 0
R18b 300
C8b 10/25
TR3
0.6V 22.3V 0
R20 240
R18 300
R15 1K
R13b 10K
R10b 10K
R4 2.4K
R6 820
R5 3.9K
R4b 2.4K
R6b 820
R5b 3.9K
C3b 1/50
C5b 0.0018
R9b 100K
C4b 0.047
R11b 4.7K
C7 10/25
R10 10K
R12b 100K
C6b 0.047
R12 100K
C5 0.0018
C6 0.047
AKAI
98-5007
C3 1/50
R7b 10K
R8b 5.1K
VR1 250K x 2
VR2 100KB x 2
R13 10K
VR3 100KB x 2
R7 10K
R8 5.1K
R11 4.7K
C4 0.047
R9 100K
TP-S30
BALANCE
TREBLE
BASS

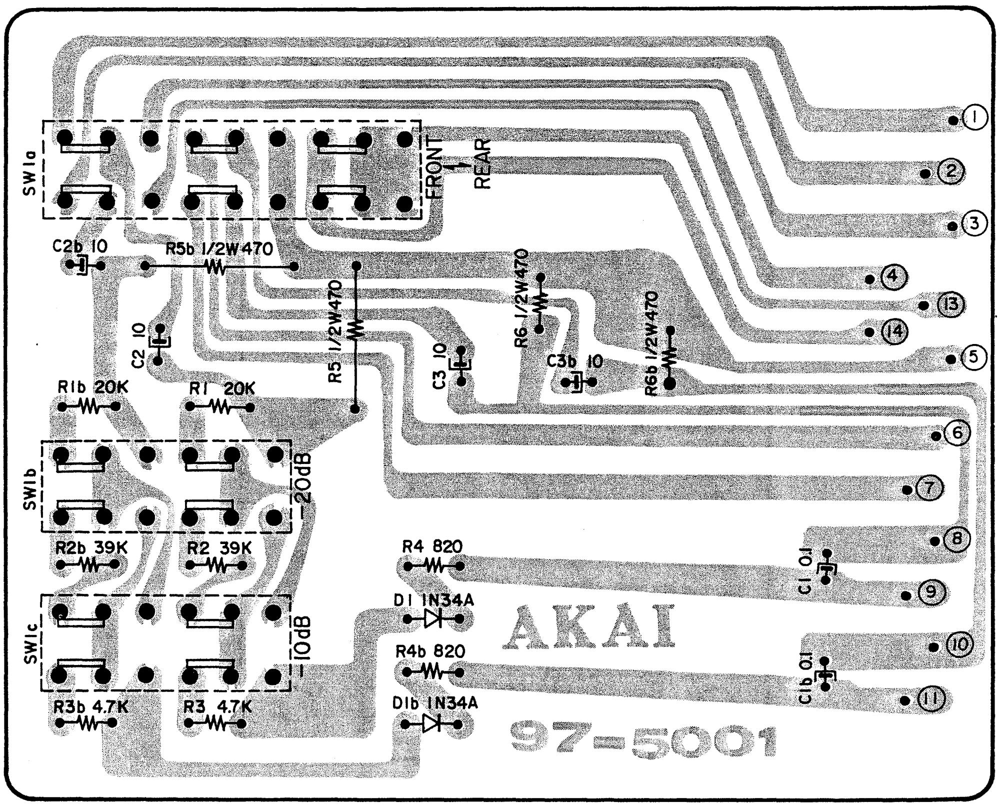
7. FILTER P.C. BOARD 97-5005


⑫ ⑪ ⑩ 33.5V ⑨ ⑧ ⑦ ⑥ ⑤
R10b 100K
C6 1
R11 100
C6b 1
⑬
R9 10K
R8 10
R8b 10
R9b 10K
④
R2b 150K
33.3V
C7b 47P
⑭
TR1
2SC1312(F)(G)
33.3V
10.2V
TR1b
2SC1312(F)(G)
③
9.6V
C7 47P
R10 100K
R7 100K
R6 220K
R6b 220K
R7b 100K
R1b 18K
②
C5 1/25(M)
AKAI
C5b 1/25(M)
C8 100/35
C4b 0.0082
⑮
C2b 200P
C2 200P
①
97-5005
R5b 470K
⑯
C4 0.0082
C3 0.056
R3 68K
R3b 68K
C3b 0.056
R4 3K
R4b 3K
R5 470K
R2 150K
R1 18K
SC-12F
SW1d
SW1b
SW1c
SW1a
C1b 0.022
C1 0.022
FM MUTE
LOW
HIGH
FILTER
LOUDNESS

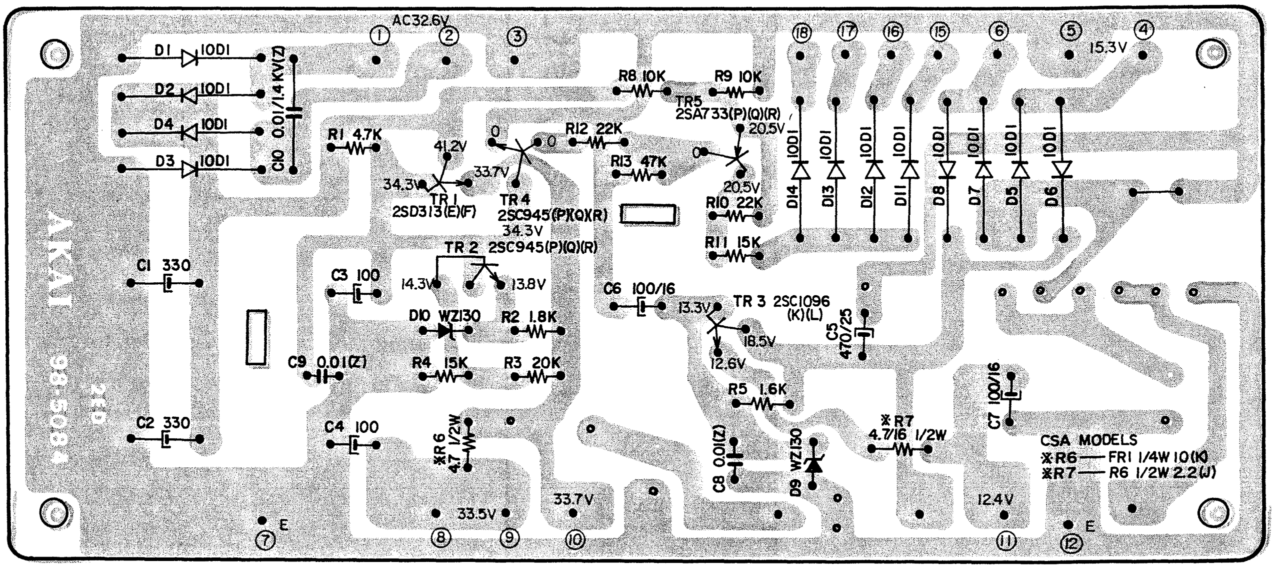
8. REMOTE SW. P.C. BOARD 97-5003


33.5V ⑨ ⑧ ⑦ ⑥
R8 390K
29.8V
R12 100
29.9V
R9 12K
R17 560
R13 220K
TR3
TR4
6.4V
9.2V
R5 1K
C5 1
C6 1
C8 30P
C10 47
R3 10K
C4 1
⑤
⑩
15.8V
29.9V
R15 10
8.5V
TR1
R2 100K
5.9V
8.7V
TR3,4, TR3b,4b
2SC1312(F)(G)
21.5V
C2 30P
C3 1
④
⑪
R6 68K
R7 56K
R10 2.2K
R14 100K
R16 10K
C1 1
9.1V
R4 10K
AKAI
C9 1
SW1
R11 2.7K
C7 33/16
R1 220K
REMOTE
③
⑫
97-5003
⑲
㉓
R1b 220K
R4b 10K
R8b 390K
R9b 12K
R12b 100
C3b 1
②
⑬
R5b 1K
TR3b
C2b 30P
C5b 1
R13b 220K
C6b 1
⑱
㉒
C1b 1
C4b 1
①
TR1b
⑭
R6b 68K
R15b 10
TP-S30
R7b 56K
R10b 2.2K
C6b 1
⑰
㉑
R2b 100K
R3b 10K
TR1,TR1b 2SC1312(F)(G)
⑮
C7b 33/16
TR4b
⑯
⑳
R11b 2.7K
C8b 30P
R14b 100K
R16b 10K

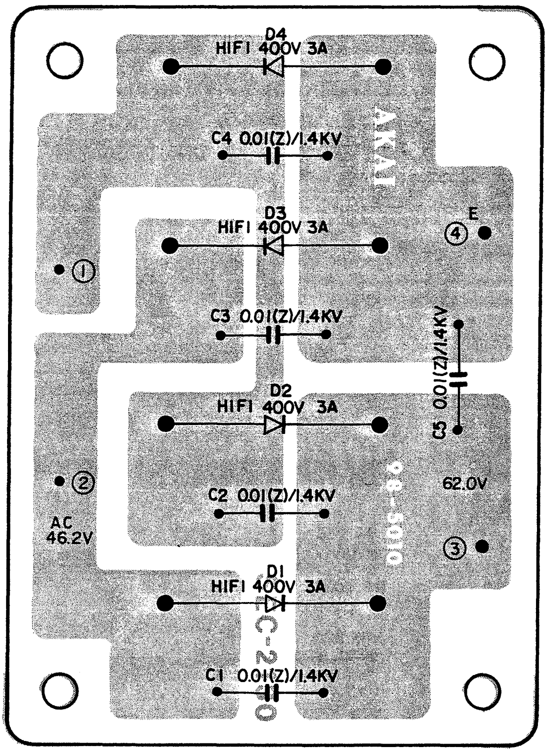
9. METER SW. P.C. BOARD 97-5001


SW1a
FRONT
REAR
C2b 10
R5b 1/2W 470
C2 10
R5 1/2W470
C3 10
R6 1/2W470
C3b 10
R6b 1/2W470
R1b 20K
R1 20K
SW1b
-20dB
R2b 39K
R2 39K
R4 820
D1 1N34A
SW1c
-10dB
R4b 820
D1b 1N34A
R3b 4.7K
R3 4.7K
C1 0.1
C1b 0.1
AKAI
97-5001
①
②
③
④
⑬
⑭
⑤
⑥
⑦
⑧
⑨
⑩
⑪

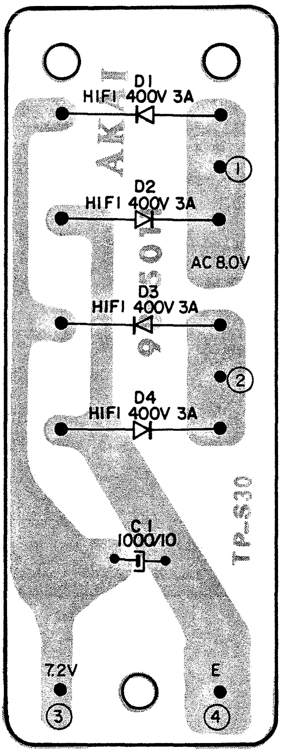
10. REGULATOR P.C. BOARD (8) 98-5084


AC32.6V
①
②
③
D1 10D1
D2 10D1
D4 10D1
D3 10D1
C10 0.01/1.4KV(Z)
R1 4.7K
41.2V
34.3V
TR1 2SD313(E)(F)
33.7V
0
0
TR4 2SC945(P)(Q)(R)
34.3V
R12 22K
R13 47K
R8 10K
R9 10K
TR5 2SA733(P)(Q)(R)
20.5V
0
20.5V
R10 22K
R11 15K
⑱
⑰
⑯
⑮
⑥
⑤
④
15.3V
D14 10D1
D13 10D1
D12 10D1
D11 10D1
D8 10D1
D7 10D1
D5 10D1
D6 10D1
C1 330
C3 100
TR 2 2SC945(P)(Q)(R)
14.3V
13.8V
D10 WZ130
R2 1.8K
C9 0.01(Z)
R4 15K
R3 20K
C6 100/16
13.3V
TR 3 2SC1096 (K)(L)
18.5V
12.6V
C5 470/25
R5 1.6K
C2 330
C4 100
※R6 4.7 1/2W
C8 0.01(Z)
D9 WZ130
※R7 4.7/16 1/2W
C7 100/16
CSA MODELS
※R6—FR1 1/4W 10(K)
※R7—R6 1/2W 2.2(J)
AKAI
98-5084
219
33.5V
33.7V
12.4V
⑦ E
⑧
⑨
⑩
⑪
⑫ E

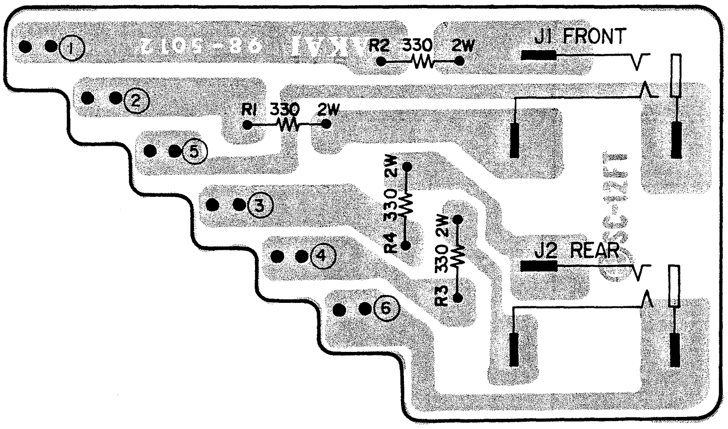
11. RECTIFIER P.C. BOARD (1) 98-5010


D4
HIFI 400V 3A
C4 0.01(Z)/1.4KV
AKAI
D3
HIFI 400V 3A
E
④
①
C3 0.01(Z)/1.4KV
C5 0.01(Z)/1.4KV
D2
HIFI 400V 3A
②
AC
46.2V
C2 0.01(Z)/1.4KV
98-5010
62.0V
③
D1
HIFI 400V 3A
C1 0.01(Z)/1.4KV

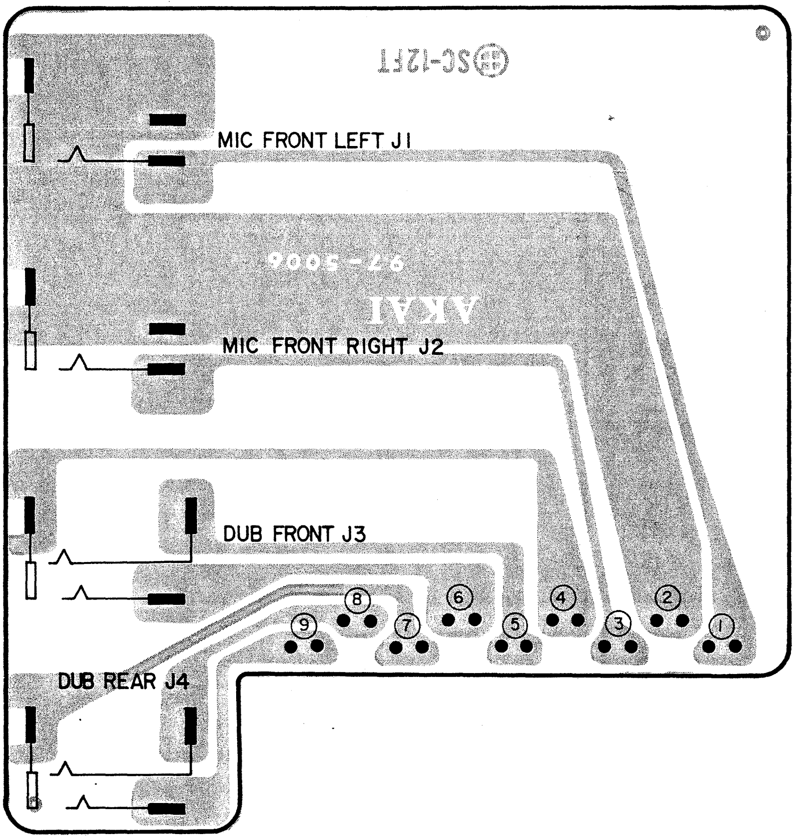
12. RECTIFIER P.C. BOARD (2) 98-5011


AKAI
D1
HIFI 400V 3A
①
D2
HIFI 400V 3A
AC 8.0V
D3
HIFI 400V 3A
②
D4
HIFI 400V 3A
TP-S30
C1
1000/10
7.2V
③
E
④

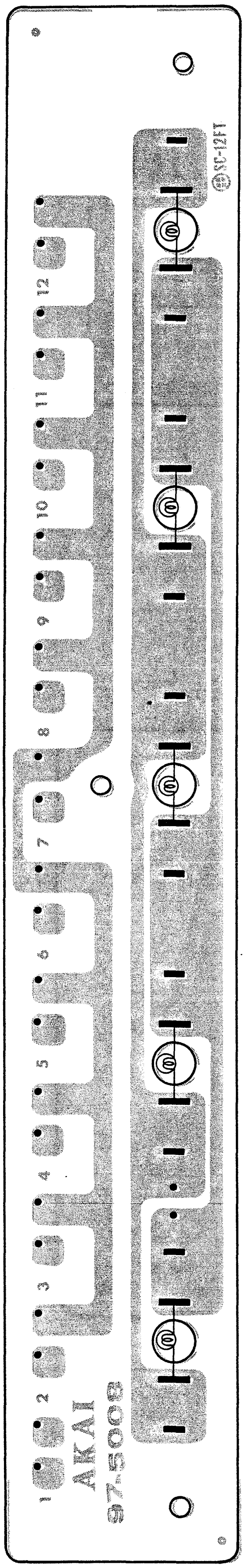
13. HEAD PHONE P.C. BOARD 98-5012


①
②
⑤
③
④
⑥
AKAI 98-5012
R2 330 2W
J1 FRONT
R1 330 2W
R4 330 2W
R3 330 2W
J2 REAR
SC-12FT

14. MIC. DUB P.C. BOARD 97-5006


SC-12FT
MIC FRONT LEFT J1
97-5006
AKAI
MIC FRONT RIGHT J2
DUB FRONT J3
⑧
⑥
④
②
⑨
⑦
⑤
③
①
DUB REAR J4

15. DIAL ILLUMINATION P.C. BOARD 97-5008


SC-12FT
1
2
3
4
5
6
7
8
9
10
11
12
AKAI
97-5008

SECTION 2

PARTS LIST

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HOW TO USE THIS PARTS LIST

1. This parts list is compiled by various individual blocks based on assembly process.
2. When ordering parts, please describe parts number, serial number, and model number in detail.
3. How to read List

   The reference number corresponds with illustration or photo number of that particular parts list.

   This number corresponds with the Figure Number.

   This number corresponds with the individual parts index number in that figure.

   A small "x" indicates the inability to show that particular part in the Photo or Illustration.

   12-115x

   Schematic Diagram Number of individual manufactured part. (not required for parts order)

   Quantity of particular part required.

Ref. No.	Parts No.	Description	Schematic No.	Q'ty
		FLYWHEEL BLOCK #13		
12-115x	800425	Flywheel Block Assy. Comp.	RDG #13	1
12-116	244506	Flywheel Only	RD-233	1
12-117x	244754	Felt, Flywheel	RD-275	1
12-118	251324	Main Metal Case	RD-236	1
12-119	253080	Main Metal	RD-237	1

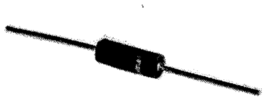
4. The symbol numbers shown on the P.C. Board list can be matched with the Composite Views of Components of the Schematic Diagram or Service Manual.
5. The indications of Resistors and Capacitors in the photos of P.C. Board are being eliminated.
6. The shape of the parts and parts name, etc. can be confirmed by comparing them with the parts shown on the Electrical Parts Table of P.C. Board.
7. Both the kind of part and installation position can be determined by the Parts Number. To determine where a parts number is listed, utilize Parts Index at end of Parts List.

   It is necessary first of all to find the Parts Number. This can be accomplished by using the Reference Number listed at right of parts number in the Parts Index. (meaning of ref. no. outlined in Item 3 above).
8. Utilize separate "Price List for Parts" to determine unit price. The most simple method of finding parts Price is to utilize the reference number.

ELECTRICAL PARTS TABLE

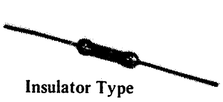
Because the indication of resistors and capacitors in the P.C. Board photos are being eliminated, please confirm parts name and shape by comparing them with the parts shown in this table.

1



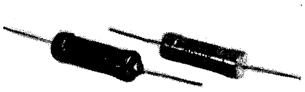
Solid Resistor

2



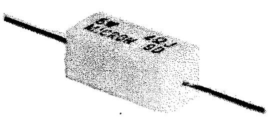
Carbon Resistor

3



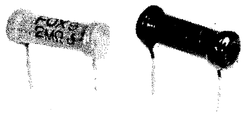
Metal Oxide Film Resistor

4



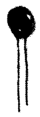
Cement Resistor

5



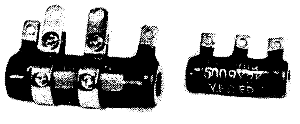
Wire-Wound Resistor

6



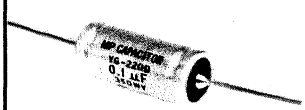
Thermister

7



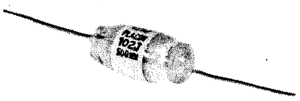
Enamel Resistor

1



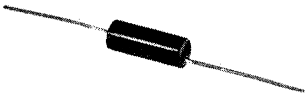
MP Capacitor (Tubular Type)

2



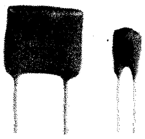
Plastic Capacitor

3



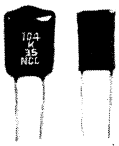
Mylar Capacitor

4



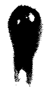
VFM (Hi-Q) Capacitor

5



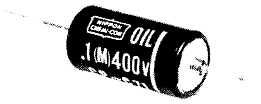
Mylar Capacitor

6



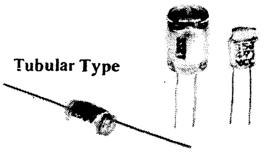
Tantalum Capacitor

7



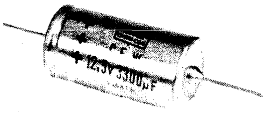
Oil Capacitor (Tubular Type)

8



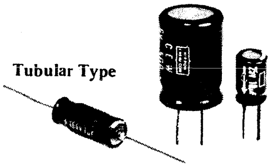
Styrol Capacitor

9



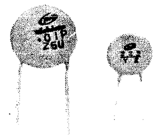
Electrolytic Capacitor (Tubular Type)

10



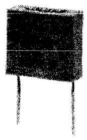
Electrolytic Capacitor

11



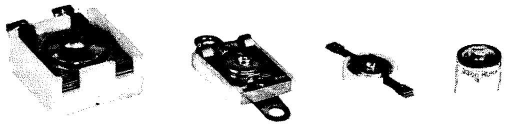
Ceramic Capacitor

12



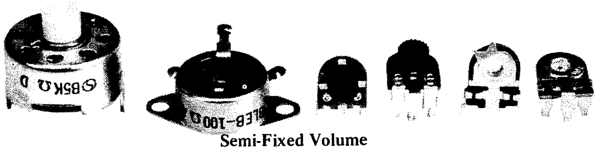
Metalized Mylar (Paper) Capacitor

13



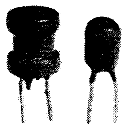
Trimmer Condenser

VR



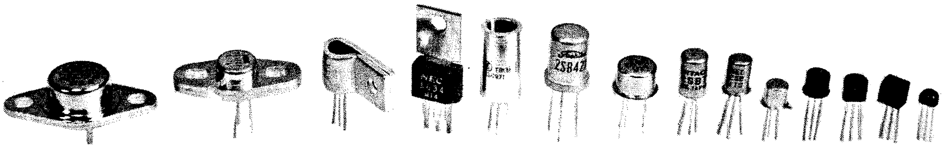
Semi-Fixed Volume

L



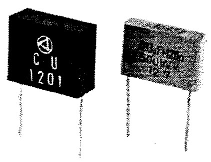
Ferri Inductor

TR



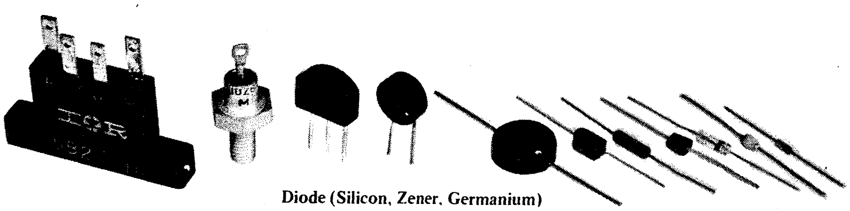
Transistor

CR



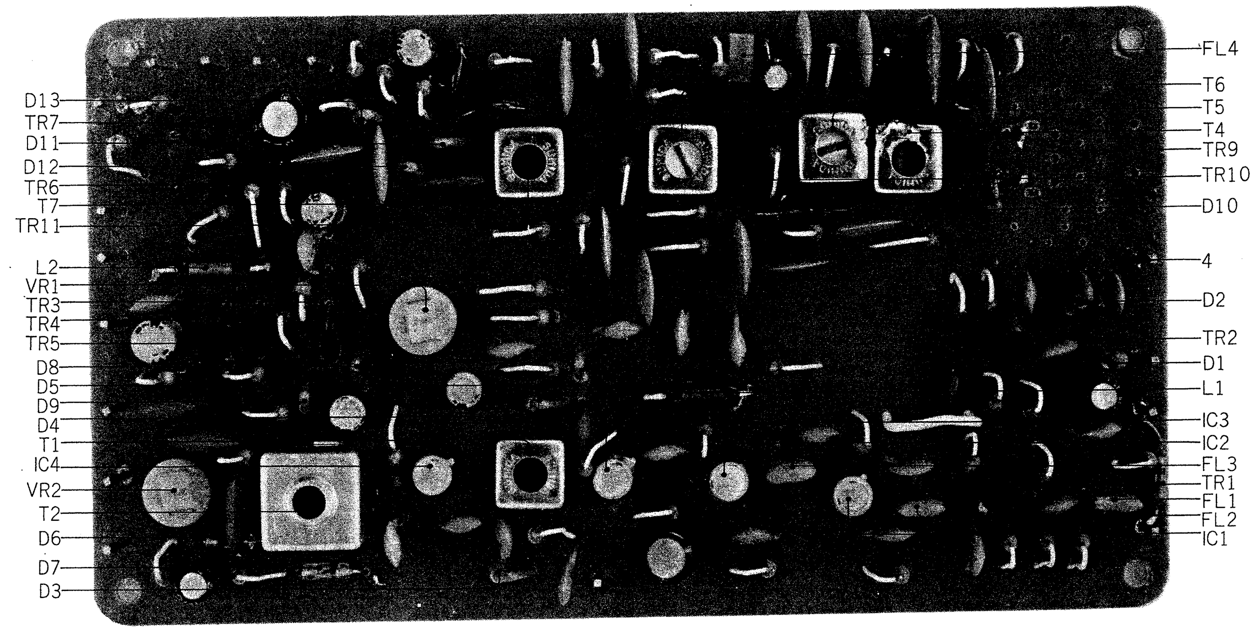
Spark Quencher

D



Diode (Silicon, Zener, Germanium)

FIG. 1 PHOTO OF IF P.C. BOARD (94-5009) BLOCK


D13
TR7
D11
D12
TR6
T7
TR11
L2
VR1
TR3
TR4
TR5
D8
D5
D9
D4
T1
IC4
VR2
T2
D6
D7
D3
FL4
T6
T5
T4
TR9
TR10
D10
4
D2
TR2
D1
L1
IC3
IC2
FL3
TR1
FL1
FL2
IC1

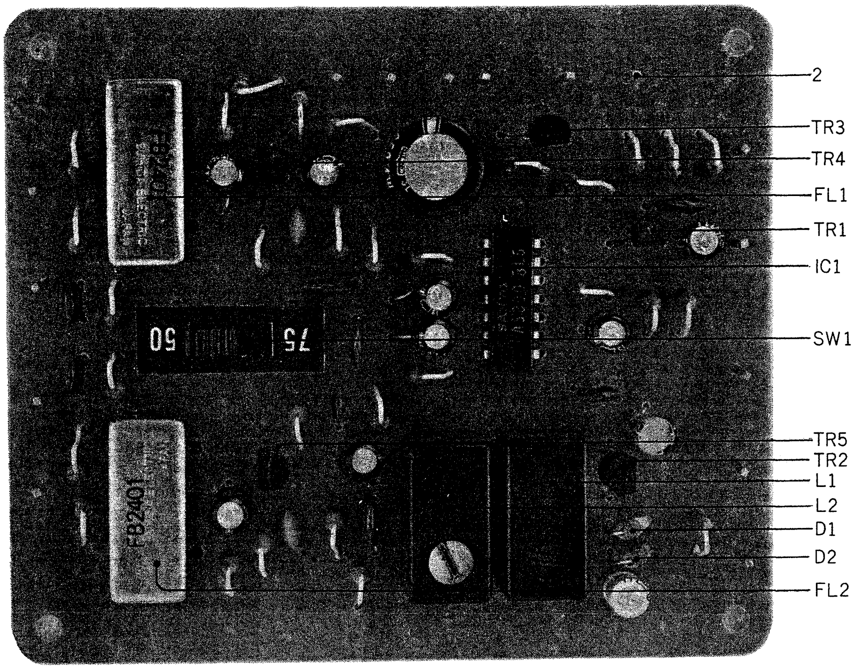
IF P.C. BOARD (94-5009) BLOCK

Symbol No.	Parts No.	Description	Q'ty
1-1x	BA562320	IF P.C. Board Comp. (94-5009)	1
1-2x	BA563894	IF P.C. Board Comp. (94-5009) (US-B)	1
1-3x	BA562331	IF P.C. Board Comp. (94-5009) (J)	1
1-IC1 to 4	EI469967	I.C LA-1221	4
1-TR1, 2	ET520334	Transistor 2SC922(L)	2
1-TR3 to 7	ET380834	Transistor 2SC711(E)	5
1-TR9 to 11	ET427860	Transistor 2SC839(H)	3
1-D1 to 5	ED428264	Germanium Diode 1N60	5
1-D6, 7	ED379855	Germanium Diode 1N60P	2
1-D8	ED514721	Silicon Diode WG-599	1
1-D9 to 13	ED219464	Germanium Diode 1N34A	5
1-T1	ET551406	Trans. 05M-033-1329	1
1-T2	ED551395	FM Discri Coil 05M-033-1352B	1
1-T4	ED551428	AM-OSC Coil 05M-033-1327	1
1-T5	BT379991	Trans. HI-137S (Yellow)	1
1-T6	BT380384	Trans. HI-134S (White)	1
1-T7	BT443610	Trans. HI-144S (Black)	1
1-FL1 to 3	ER539818	Filter SFE-10.7MAS	3
1-FL4	ER380406	Filter BFB 455B-5	1
1-FL4	ER380417	Filter BFB 464-A	1
1-L1, 2	EO539820	Peaking Coil 2.2μH(K)	2
1-VR1	EV380215	Semi-fixed/Vol. SR19R 100 kB (Solid Type)	1
1-VR2	EV551452	Semi-fixed/Vol. SR19R 22 kB (Solid Type)	1
1-4	EJ539662	Wrapping Post 1x17	19

Symbol No.	Parts No.	Description	Q'ty
		Capacitor, Vertical Type	
1-C1 to 3	EC551441	Ceramic DD600YM 0.01μF(Z) 50WV	3
1-C4	EC368256	Elect. 0.47μF 25WV	1
1-C5 to 7	EC551441	Ceramic DD600YM 0.01μF(Z) 50WV	3
1-C8	EC419231	VFM 12PF(J) 50WV	1
1-C9 to 17	EC551441	Ceramic DD600YM 0.01μF(Z) 50WV	9
1-C18	EC336104	Elect. 100μF 6.3WV	1
1-C19, 20	EC551441	Ceramic DD600YM 0.01μF(Z) 50WV	2
1-C21, 22	EC336216	VFM 330PF(J) 50WV	2
1-C23	EC450527	Elect. 4.7μF 25WV	1
1-C24	EC336216	VFM 330PF(J) 50WV	1
1-C25	EC329771	Elect. 47μF 6.3WV	1
1-C26	EC313108	Elect. 1μF 50WV	1
1-C27	EC290531	VFM 100PF(K) 50WV	1
1-C28, 29	EC551441	Ceramic DD600YM 0.01μF(Z) 50WV	2
1-C30	EC313108	Elect. 1μF 50WV	1
1-C31, 32	EC551441	Ceramic DD600YM 0.01μF(Z) 50WV	2
1-C33	EC450527	Elect. 4.7μF 25WV	1
1-C34	EC492142	Ceramic DD512YM 0.047μF (Z) 50WV	1
1-C35	EC250841	Mylar 0.01μF(J) 50WV	1
1-C36	EC423562	VFM 470PF(J) 50WV	1
1-C37	EC419231	VFM 12PF(J) 50WV	1
1-C38 to 42	EC492142	Ceramic DD512YM 0.047μF(Z) 50WV	5
1-C43	EC320051	Elect. 10μF 16WV	1
1-C44 to 47	EC492142	Ceramic DD512YM 0.047μF(Z) 50WV	4
1-C48	EC329850	VFM 220PF(J) 50WV	1
1-C49, 50	EC250841	Mylar 0.01μF(J) 50WV	2
1-C51	EC492142	Ceramic DD512YM 0.047μF(Z) 50WV	1
1-C52	EC450527	Elect. 4.7μF 25WV	1
1-C53	EC492142	Ceramic DD512YM 0.047μF(Z) 50WV	1
1-C54	EC336104	Elect. 100μF 6.3WV	1

Symbol No.	Parts No.	Description	Q'ty
		Resistor, Stopper Type	
1-R1	ER211667	Carbon RD1/4 100(J)	1
1-R2	ER212681	Carbon RD1/4 330(J)	1
1-R3	ER306887	Carbon RD1/4 15k(J)	1
1-R4	ER212872	Carbon RD1/4 4.3k(J)	1
1-R5	ER212681	Carbon RD1/4 330(J)	1
1-R6	ER211465	Carbon RD1/4 1k(J)	1
1-R7	ER212883	Carbon RD1/4 4.7k(J)	1
1-R8	ER306843	Carbon RD1/4 1.2k(J)	1
1-R9	ER357491	Carbon RD1/4 82k(J)	1
1-R10	ER306887	Carbon RD1/4 15k(J)	1
1-R11, 12	ER212681	Carbon RD1/4 330(J)	2
1-R13	ER304290	Carbon RD1/4 10(J)	1
1-R14	ER212681	Carbon RD1/4 330(J)	1
1-R15	ER371946	Carbon RD1/4 2k(J)	1
1-R16, 17	ER304290	Carbon RD1/4 10(J)	2
1-R18	ER380913	Carbon RD1/4 33(J)	1
1-R19	ER399060	Carbon RD1/4 9.1k(J)	1
1-R20	ER347073	Carbon RD1/4 200(J)	1
1-R21, 22	ER211465	Carbon RD1/4 1k(J)	2
1-R23	ER211667	Carbon RD1/4 100(J)	1
1-R24	ER211858	Carbon RD1/4 12k(J)	1
1-R25	ER349907	Carbon RD1/4 33k(J)	1
1-R26	ER211757	Carbon RD1/4 100k(J)	1
1-R27	ER212264	Carbon RD1/4 22k(J)	1
1-R28	ER430086	Carbon RD1/4 560K(J)	1
1-R29	ER349907	Carbon RD1/4 33k(J)	1
1-R30	ER392850	Carbon RD1/4 390k(J)	1
1-R31	ER336442	Carbon RD1/4 10k(J)	1
1-R32	ER212477	Carbon RD1/4 3.3k(J)	1
1-R33	ER211858	Carbon RD1/4 12k(J)	1
1-R34	ER212681	Carbon RD1/4 330(J)	1
1-R35, 36	ER336442	Carbon RD1/4 10k(J)	2
1-R37	ER357456	Carbon RD1/4 2.2k(J)	1
1-R38	ER361528	Carbon RD1/4 56k(J)	1
1-R39	ER349942	Carbon RD1/4 8.2k(J)	1
1-R40	ER211667	Carbon RD1/4 100(J)	1
1-R41	ER357456	Carbon RD1/4 2.2k(J)	1
1-R42	ER211465	Carbon RD1/4 1k(J)	1
1-R43	ER379517	Carbon RD1/4 62k(J)	1
1-R44, 45	ER211667	Carbon RD1/4 100(J)	2
1-R46	ER304402	Carbon RD1/4 470(J)	1
1-R47	ER211465	Carbon RD1/4 1k(J)	1
1-R48	ER357535	Carbon RD1/4 39k(J)	1
1-R49	ER336442	Carbon RD1/4 10k(J)	1
1-R50	ER304402	Carbon RD1/4 470(J)	1
1-R51	ER211465	Carbon RD1/4 1k(J)	1
1-R52, 53	ER211667	Carbon RD1/4 100(J)	2
1-R54	ER336442	Carbon RD1/4 10k(J)	1
1-R55	ER304402	Carbon RD1/4 470(J)	1
1-R56	ER212883	Carbon RD1/4 4.7k(J)	1
1-R57	ER391961	Carbon RD1/4 91k(J)	1
1-R58	ER357456	Carbon RD1/4 2.2k(J)	1

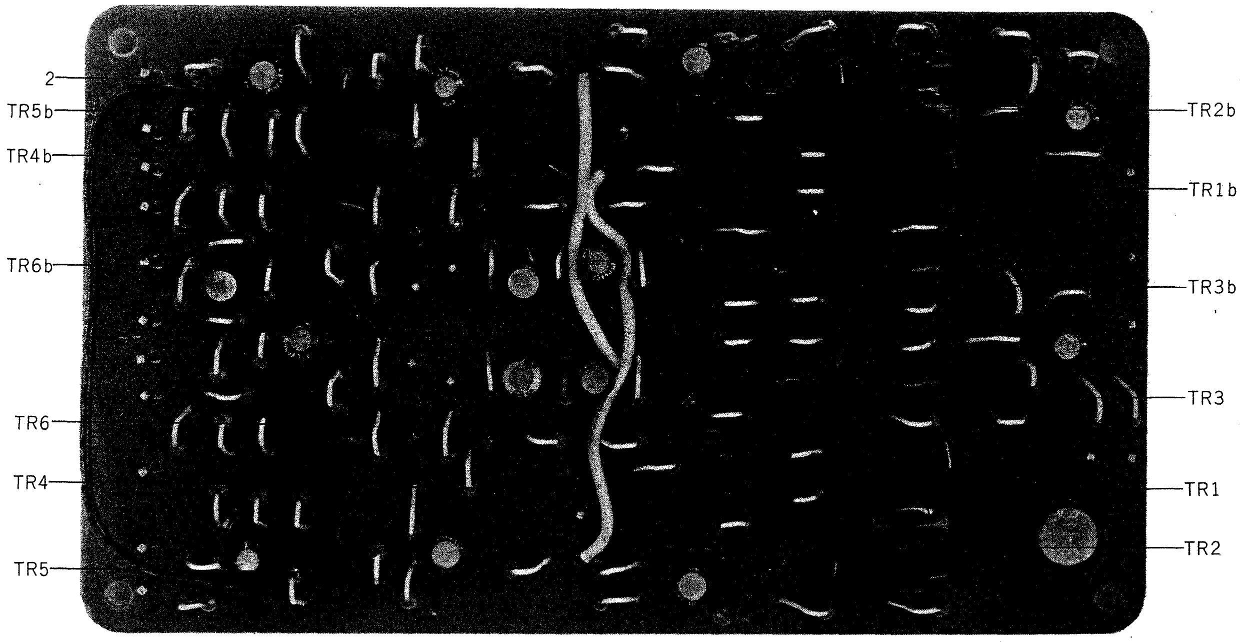
FIG. 2 PHOTO OF MPX P.C. BOARD (94-5008) BLOCK



MPX P.C. BOARD (94-5008) BLOCK

Symbol No.	Parts No.	Description	Q'ty
2-1x	BA574795	MPX P.C. Board Comp. (94-5008)	1
2-IC1	EI443744	I.C LA-3300	1
2-TR1	ET552870	FET 2SK30 (Y) (GR)	1
2-TR2, 3	ET453486	Transistor 2SC711 (E) (F)	2
2-TR4, 5	ET539987	Transistor 2SC1312(F) (G)	2
2-D1, 2	EO219464	Germanium Diode 1N34A	2
2-L1	EO443766	Coil (19KC) 02-1070-03 1070 (Black)	1
2-L2	EO443777	Coil (38KC) 02-1064-03 1064 (White)	1
2-FL1, 2	ER512201	Filter FB-24	2
2-SW1	ES513922	Slide SW. SSBO2242	1
2-2	EJ539662	Wrapping Post 1x17	15
		Capacitor, Vertical Type	
2-C1	EC331828	Elect. 3.3µF 25WV	1
2-C2	EC250841	Mylar 0.01µF(J) 50WV	1
2-C3	EC313244	Elect. 1µF 16WV	1
2-C4	EC331828	Elect. 3.3µF 25WV	1
2-C5	EC339096	Elect. 470µF 16WV	1
2-C6	EC389474	Mylar 0.0015µF(J) 50WV	1
2-C7	EC350706	Elect. 4.7µF 16WV	1
2-C8, 9	EC220432	Elect. 2.2µF 25WV	2
2-C10, 11	EC337500	Mylar 0.0047µF(J) 50WV	2
2-C12, 13	EC250975	Mylar 0.015µF(J) 50WV	2
2-C14, 15	EC220432	Elect. 2.2µF 25WV	2
2-C16, 17	EC551463	Ceramic DD600YW 0.001µF (Z) 50WV	2
2-C18, 19	EC350706	Elect. 4.7µF 16WV	2
2-C20, 21	EC380621	Mylar 0.0068µF(J) 50WV	2
		Resistor, Stopper Type	
2-R1	ER346994	Carbon RD1/4 18k(J)	1
2-R2	ER357491	Carbon RD1/4 82k(J)	1
2-R3	ER496214	Carbon RD1/4 360k(J)	1
2-R4	ER419040	Carbon RD1/4 1M(J)	1
2-R5	ER357491	Carbon RD1/4 82k(J)	1
2-R6	ER496214	Carbon RD1/4 360k(J)	1
2-R7	ER336442	Carbon RD1/4 10k(J)	1
2-R8	ER211465	Carbon RD1/4 1k(J)	1
2-R9, 10	ER343078	Carbon RD1/4 2.7k(J)	2
2-R11	ER357456	Carbon RD1/4 2.2k(J)	1
2-R12, 13	ER346601	Carbon RD1/4 47k(J)	2
2-R14, 15	ER211465	Carbon RD1/4 1k(J)	2
2-R16 to 19	ER380711	Carbon RD1/4 220k(J)	4
2-R20, 21	ER212883	Carbon RD1/4 4.7k(J)	2
2-R22, 23	ER371946	Carbon RD1/4 2k(J)	2
2-R24	ER212681	Carbon RD1/4 330(J)	1
2-R25, 26	ER212883	Carbon RD1/4 4.7k(J)	2
2-R27, 28	ER346601	Carbon RD1/4 47k(J)	2
2-R29, 30	ER357535	Carbon RD1/4 39k(J)	2

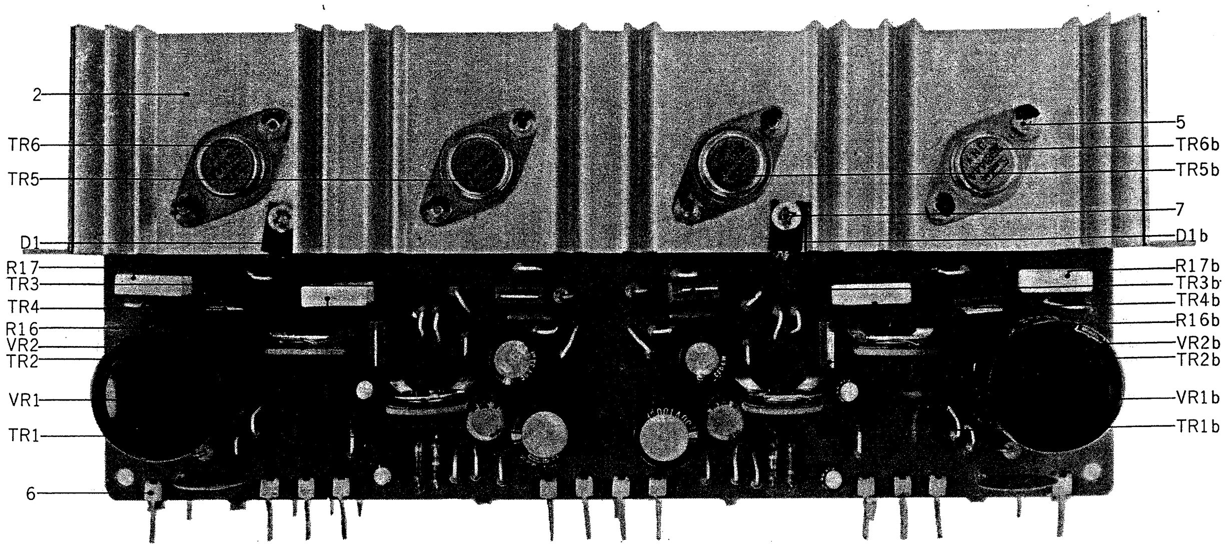
FIG. 3 PHOTO OF SQ P.C. BOARD (97-5010) BLOCK



SQ P.C. BOARD (97-5010) BLOCK

Symbol No.	Parts No.	Description	Q'ty
3-1x	BA562342	SQ P.C. Board Comp. (97-5010)	1
3-TR1 to 6	ET539987	Transistor 2SC1312 (F) (G)	12
3-2	EJ539662	Wrapping Post 1x17	22
		Capacitor, Vertical Type	
3-C1	EC455354	Elect. 100µF 35WV	1
3-C2	EC313108	Elect. 1µF 50WV	2
3-C3	EC538435	Mylar 0.22µF (J) 50WV	2
3-C4	EC368357	Mylar 0.056µF (J) 50WV	2
3-C5	EC329883	Mylar 0.0056µF (J) 50WV	2
3-C6	EC379721	Mylar 0.0012µF (J) 50WV	2
3-C7	EC368335	Mylar 0.022µF (J) 50WV	2
3-C8	EC337500	Mylar 0.0047µF (J) 50WV	2
3-C9	EC350875	Mylar 0.001µF (J) 50WV	2
3-C10	EC329883	Mylar 0.0056µF (J) 50WV	2
3-C11	EC450527	Elect. 4.7µF 25WV	2
3-C12	EC522551	Tantalum 2.2µF (M) 25WV (Dts Type)	2
3-C13, 14	EC450527	Elect. 4.7µF 25WV	4
3-C15	EC522551	Tantalum 2.2µF (M) 25WV (Dts Type)	2
3-C16	EC450527	Elect. 4.8µF 25WV	2
3-C17	EC522551	Tantalum 2.2µF (M) 25WV	2
3-C18, 19	EC290520	VFM 100PF (J) 50WV	4
3-C20, 21	EC450527	Elect. 4.7µF 25WV	4
		Resistor, Stopper Type	
3-R1	ER336442	Carbon RD1/4 10k(J)	2
3-R2	ER430086	Carbon RD1/4 560k(J)	2
3-R3	ER336442	Carbon RD1/4 10k(J)	2
3-R4	ER306887	Carbon RD1/4 15k(J)	2
3-R5	ER357570	Carbon RD1/4 150k(J)	2
3-R6	ER306843	Carbon RD1/4 1.2k(J)	2
3-R7, 8	ER212883	Carbon RD1/4 4.7k(J)	4
3-R9	ER212264	Carbon RD1/4 22k(J)	2
3-R10	ER342933	Carbon RD1/4 27k(J)	2
3-R11 to 14	ER357456	Carbon RD1/4 2.2k(J)	8
3-R15	ER346544	Carbon RD1/4 3k(J)	2
3-R16	ER342933	Carbon RD1/4 27k(J)	2
3-R17	ER346544	Carbon RD1/4 3k(J)	2
3-R18	ER407316	Carbon RD1/4 24k(J)	2
3-R19	ER379552	Carbon RD1/4 110k(J)	2
3-R20, 21	ER211757	Carbon RD1/4 100k(J)	4
3-R22	ER336442	Carbon RD1/4 10k(J)	2
3-R23	ER349942	Carbon RD1/4 8.2k(J)	2
3-R24	ER362520	Carbon RD1/4 75k(J)	1
3-R25	ER423753	Carbon RD1/4 1.2M(J)	2
3-R26	ER346601	Carbon RD1/4 47k(J)	2
3-R27	ER380755	Carbon RD1/4 6.2k(J)	2
3-R28	ER419556	Carbon RD1/4 43k(J)	1
3-R29	ER211757	Carbon RD1/4 100k(J)	2
3-R30	ER346601	Carbon RD1/4 47k(J)	2
3-R31	ER213030	Carbon RD1/4 5.6k(J)	2
3-R32	ER346601	Carbon RD1/4 47k(J)	2
3-R33	ER213030	Carbon RD1/4 5.6k(J)	2
3-R34, 35	ER357570	Carbon RD1/4 150k(J)	4
3-R36	ER352045	Carbon RD1/4 3.9k(J)	2
3-R37	ER349784	Carbon RD1/4 390(J)	2
3-R38	ER352045	Carbon RD1/4 3.9k(J)	2
3-R39	ER381723	Carbon RD1/4 360(J)	2
3-R40	ER211320	Carbon RD1/4 1.5k(J)	2
3-R41	ER342933	Carbon RD1/4 27k(J)	1
3-R42	ER211757	Carbon RD1/4 100k(J)	2
3-R43	ER407316	Carbon RD1/4 24k(J)	2
3-R44	ER343078	Carbon RD1/4 2.7k(J)	2
3-R45	ER306360	Carbon RD1/4 6.8k(J)	1
3-R46	ER211757	Carbon RD1/4 100k(J)	2
3-R47	ER407316	Carbon RD1/4 24k(J)	2
3-R48	ER399060	Carbon RD1/4 9.1k(J)	1
3-R49	ER346994	Carbon RD1/4 18k(J)	1
3-R50	ER361528	Carbon RD1/4 56k(J)	1
3-R51	ER346601	Carbon RD1/4 47k(J)	1
3-R52	ER211667	Carbon RD1/4 100(J)	1

FIG. 4 PHOTO OF MAIN AMP. P.C. BOARD (97-5009) BLOCK

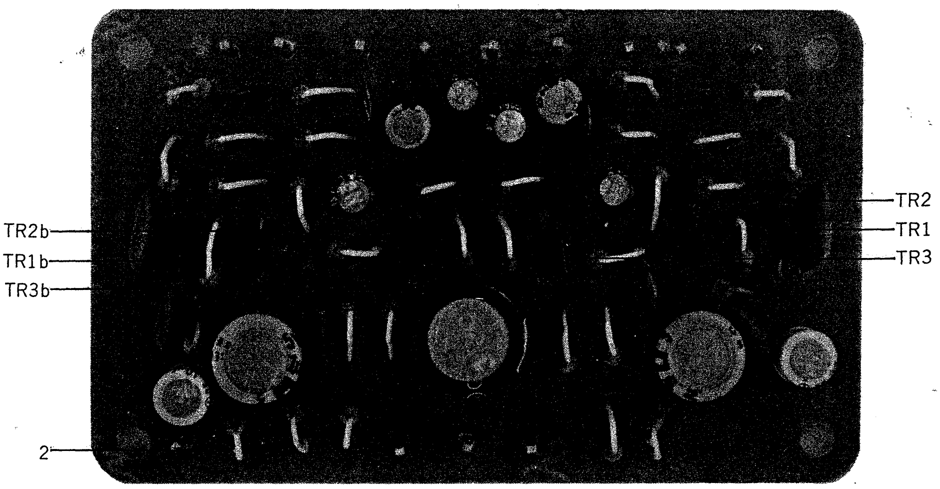


MAIN AMP. P.C. BOARD (97-5009) BLOCK

Symbol No.	Parts No.	Description	Q'ty
4-1x	BA570903	Main Amp. P.C. Board Comp. (97-5009)	1
4-TR1	ET539987	Transistor 2SC1312 (F) (G)	2
4-TR2, 3	ET551564	Transistor 2SC1124 (1) (2)	4
4-TR4	ET556020	Transistor 2SA706-3 (1) (2)	2
4-TR5, 6	ET562048	Transistor 2SC1444 (O) (Y)	4
4-D1	ED556514	Varistor STV-3H	2
4-VR1	EV383398	Semi-fixed/Vol. V18K3-2 30 kB (4US)	2
4-VR2	EV409858	Semi-fixed/Vol. V18K3-2 100B (4US)	2
4-2	AA542992	Heat-sink C	1
4-3x	AA545624	Transistor Mt. Plate	4
4-4x	ZW259503	Washer (Nylon) D3.1x8x0.5t	16
4-5	ZS564390	ISO Screw, binding head 3x16	16
4-6	EJ550012	Wrapping Terminal T5280	12
4-7	ZS321298	ISO Screw, binding head 3x8	2
4-8x	ZW426622	Washer (SPC) D3.4x7.8x0.5t	2
		Capacitor, Vertical Type	
4-C1	EC354947	Elect. 2.2μF 50WV	2
4-C2	EC321221	Elect. 100μF 50WV	2
4-C3	EC377212	VFM 47PF(J) 50WV	2
4-C4	EC290520	VFM 100PF(J) 50WV	2
4-C5	EC364947	Elect. 2.2μF 50WV	2
4-C6	EC290520	VFM 100PF(J) 50WV	2
4-C7	EC336104	Elect. 100μF 6.3WV	2
4-C8	EC389237	VFM 200PF(J) 50WV	2
4-C9	EC556176	Elect. 2200μF 35WV (Lug. Type)	2
4-C10	EC228745	Ceramic DB209YZ 0.1μF(Z)50WV	2
4-C12	EC373296	Elect. 33μF 50WV	2

Symbol No.	Parts No.	Description	Q'ty
		Resistor, Stopper Type	
4-R1	ER213715	Carbon RD1/4 100k (J) (Insu. Type)	2
4-R2	ER334923	Carbon RD1/4 2.7k (J) (Insu. Type)	2
4-R3	ER336442	Carbon RD1/4 10k (J)	2
4-R4	ER430007	Carbon RD1/4 1.5M (J)	2
4-R5	ER211757	Carbon RD1/4 100k(J)	2
4-R6	ER212883	Carbon RD1/4 4.7k (J)	2
4-R7	ER406912	Carbon RD1/4 240 (J)	2
4-R8	ER211320	Carbon RD1/4 1.5k (J)	2
4-R9	ER324202	Carbon RD1/4 5.1k (J)	2
4-R10	ER362520	Carbon RD1/4 75k (J)	2
4-R11	ER212883	Carbon RD1/4 4.7k (J)	2
4-R12	ER212016	Carbon RD1/4 150 (J)	2
4-R13	ER357412	Carbon RD1/4 220 (J)	2
4-R14	ER407103	Carbon RD1/4 12 (J)	2
4-R15	ER357412	Carbon RD1/4 220 (J)	2
4-R16, 17	ER556064	Metal Plate MPC71F2 5W 0.47(K)	4
4-R18	ER306887	Carbon RD1/4 15k (J)	2
4-R19	ER379596	Carbon RD1/4 16k (J)	2
4-R20	ER452542	Carbon RD1/2 10 (J) (Insu. Type)	2
4-R21	ER551632	Carbon RD1/2 10 (J) (Insu. Type)	2

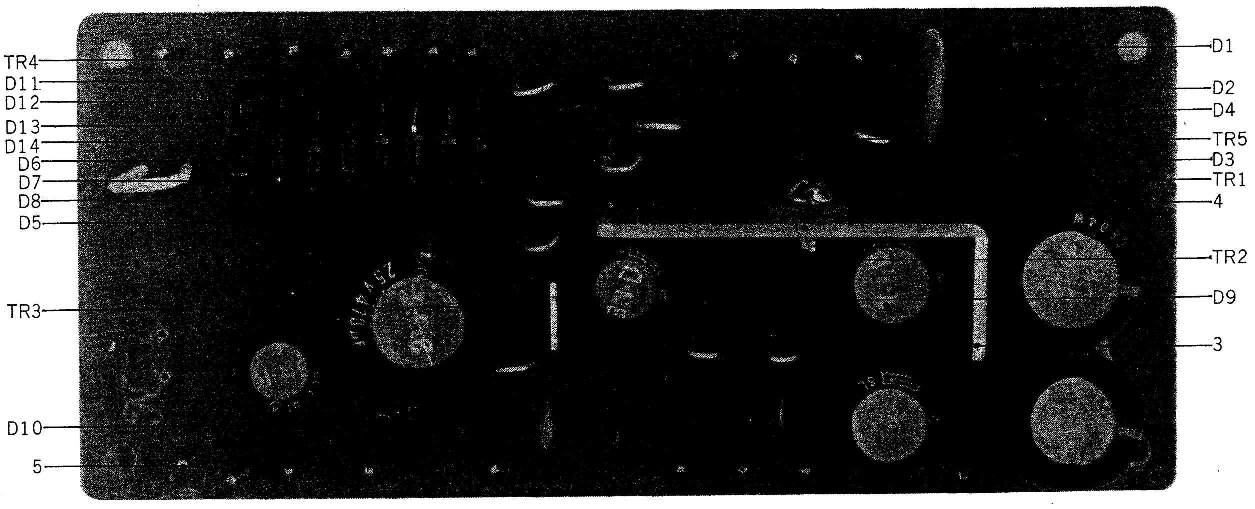
FIG. 5 PHOTO OF EQ P.C. BOARD (98-5008) BLOCK



EQ. P.C. BOARD (98-5008) BLOCK

Symbol No.	Parts No.	Description	Q'ty
5-1x	BA560654	EQ. P.C. Board Comp.(98-5008)	1
5-TR1, 2, 3	ET539987	Transistor 2SC1312 (F) (G)	6
5-2	EJ539662	Wrapping Post 1x17	13
		Capacitor, Vertical Type	
5-C1	EC517138	Elect. 10μF 25WV NL	2
5-C2	EC220678	Elect. 47μF 25WV	2
5-C3	EC329850	VFM 220PF (J) 50WV	2
5-C4	EC290520	VFM 100PF (J) 50WV	2
5-C5	EC377212	VFM 47PF (J) 50WV	2
5-C6	EC389474	Mylar 0.0015μF (J) 50WV	2
5-C7	EC329883	Mylar 0.0056μF (J) 50WV	2
5-C8	EC350706	Elect. 4.7μF 16WV	2
5-C9	EC450055	Elect. 1μF 25WV	2
5-C10	EC220432	Elect. 2.2μF 25WV	2
5-C11	EC313121	Elect. 220μF 25WV	2
		Resistor, Stopper Type	
5-R1	ER211465	Carbon RD1/4 1k (J)	2
5-R2	ER361528	Carbon RD1/4 56k (J)	2
5-R3	ER211950	Carbon RD1/4 130k(J)	2
5-R4	ER211465	Carbon RD1/4 1k(J)	2
5-R5	ER306887	Carbon RD1/4 15k(J)	2
5-R6	ER362272	Carbon RD1/4 200k(J)	2
5-R7	ER349907	Carbon RD1/4 33k(J)	2
5-R8	ER357456	Carbon RD1/4 2.2k(J)	2
5-R9, 10	ER212477	Carbon RD1/4 3.3k(J)	4
5-R11	ER430086	Carbon RD1/4 560k(J)	2
5-R12	ER357456	Carbon RD1/4 2.2k(J)	2
5-R13	ER346994	Carbon RD1/4 18k(J)	2
5-R14	ER346601	Carbon RD1/4 47k(J)	2
5-R15	ER213096	Carbon RD1/4 510(J)	2
5-R16	ER336442	Carbon RD1/4 10k(J)	2
5-R17	ER211465	Carbon RD1/4 1k(J)	2

FIG. 6 PHOTO OF REGULATOR P.C. BOARD (98-5084) BLOCK



REGULATOR P.C. BOARD (98-5084) BLOCK

Symbol No.	Parts No.	Description	Q'ty
6-1x	BA570396	Regulator P.C. Board Comp. (98-5084)	1
6-2x	BA570453	Regulator P.C. Board Comp. (98-5084) (CSA)	1
6-TR1	ET452531	Transistor 2SD313 (E) (F)	1
6-TR2	ET517994	Transistor 2SC945(P)(Q)(R)(K)	1
6-TR3	ET453611	Transistor 2SC1096(L) (K) (Z Type)	1
6-TR4	ET517994	Transistor 2SC945(P)(Q)(R)(K)	1
6-TR5	ET539122	Transistor 2SA733(P) (Q) (R)	1
6-D1 to 8	ED224526	Silicon Diode 10D1	8
6-D9, 10	ED539976	Zener Diode WZ-130	2
6-D11 to 14	ED224526	Silicon Diode 10D1	4
6-FR1	ER565828	Fuse/R. FRN1/4 10(K)700MA	1
6-3	AA545117	Heat-sink Plate	1
6-4	ZS447772	Tapping Screw #2 3x6 (BR)	1
6-5	EJ539662	Wrapping Post 1x17	19
	Capacitor, Vertical Type		
6-C1, 2	EC403468	Elect. 330μF 50WV	2
6-C3, 4	EC321221	Elect. 100μF 50WV	2
6-C5	EC331817	Elect. 470μF 25WV	1
6-C6, 7	EC220127	Elect. 100μF 16WV	2
6-C8, 9	EC557627	Ceramic DB203YZ 0.01μF(Z) 50WV	2
6-C10	EC551160	Ceramic NB821YZ 0.01μF(Z) 1.4kWV	1
		Resistor, Stopper Type	
6-R1	ER212883	Carbon RD1/4 4.7k(J)	1
6-R2	ER362441	Carbon RD1/4 1.8k(J)	1
6-R3	ER349828	Carbon RD1/4 20k(J)	1
6-R4	ER306887	Carbon RD1/4 15k(J)	1
6-R5	ER343135	Carbon RD1/4 1.6k(J)	1
6-R6	ER536984	Carbon RD1/2 4.7(J) (Insu. Type)	1
6-R6	ER554681	Carbon RD1/2 2.2(J) (Insu. Type)	1
6-R7	ER536984	Carbon RD1/2 4.7(J) (Insu. Type)	1
6-R8, 9	ER336442	Carbon RD1/4 10k(J)	2
6-R10	ER212264	Carbon RD1/4 22k(J)	1
6-R11	ER306887	Carbon RD1/4 15k(J)	1
6-R12	ER212264	Carbon RD1/4 22k(J)	1
6-R13	ER346601	Carbon RD1/4 47k(J)	1

FIG. 7 PHOTO OF RECTIFIER P.C. BOARD (1) (98-5010) BLOCK

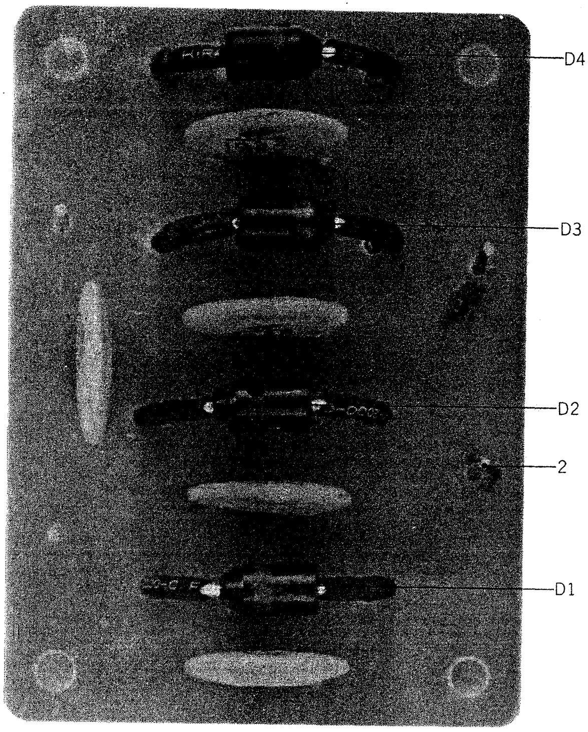
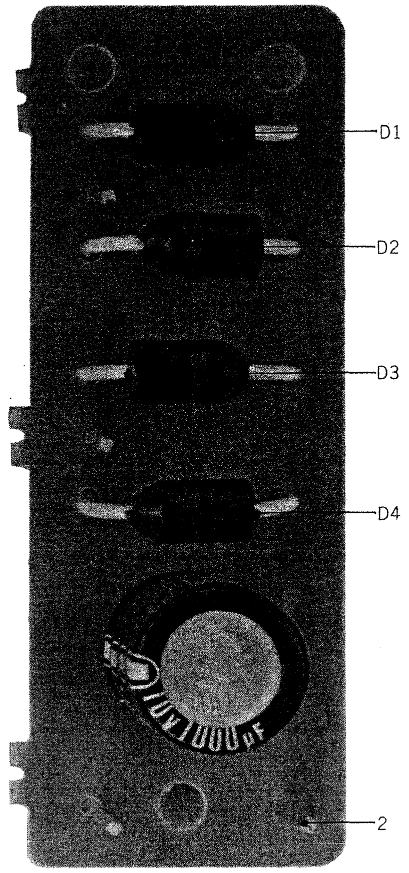


FIG. 8 PHOTO OF RECTIFIER P.C. BOARD (2) (98-5011) BLOCK



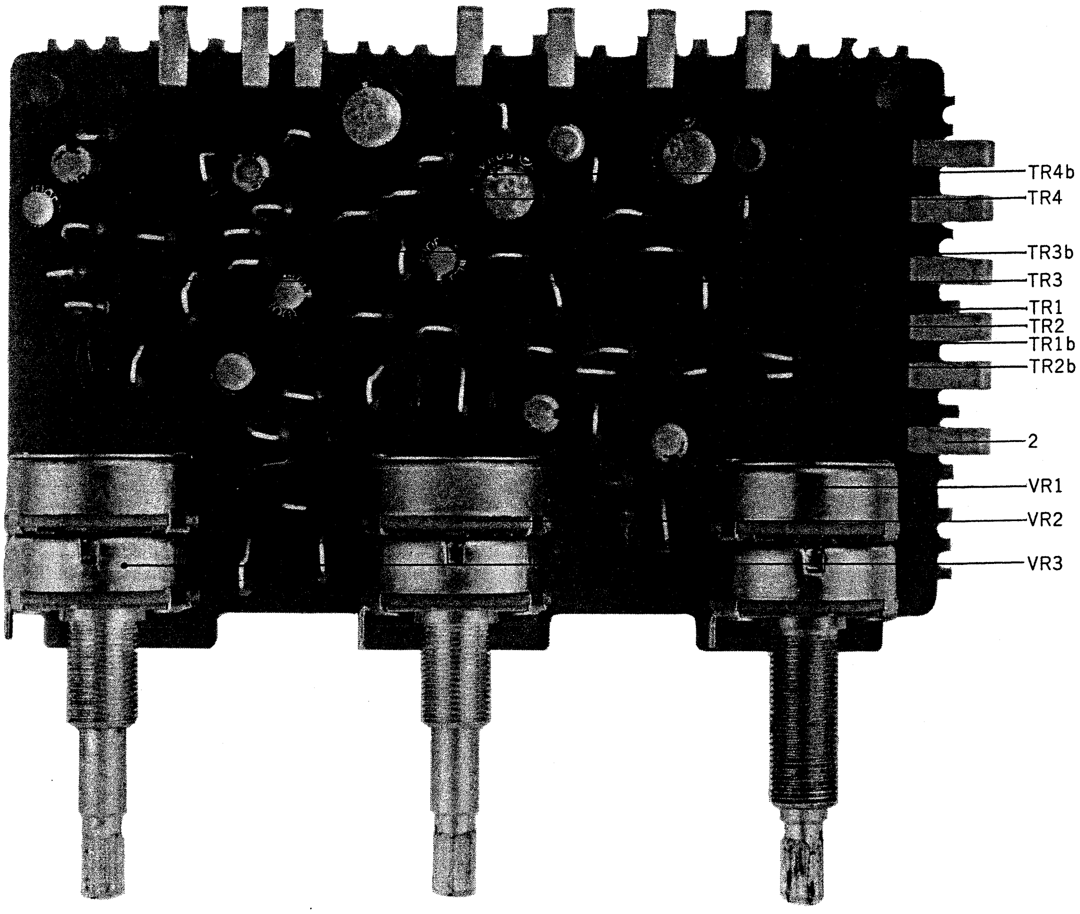
RECTIFIER P.C. BOARD (1) (98-5010) BLOCK

Symbol No.	Parts No.	Description	Q'ty
7-1x	BA560676	Rectifier P.C. Board (1) Comp. (98-5010)	1
7-D1 to 4	ED558033	Silicon Diode HIFI 400V 3A (Special)	4
7-2	EJ539662	Wrapping Post 1x17	4
7-C1 to 5	EC551160	Ceramic/C. NB821YZ 0.01μF(Z) 1.4kWV	5

RECTIFIER P.C. BOARD (2) (98-5011) BLOCK

Symbol No.	Parts No.	Description	Q'ty
8-1x	BA560687	Rectifier P.C. Board (2) Comp. (98-5011)	1
8-D1 to 4	ED558033	Silicon Diode HIFI 400V 3A (Special)	4
8-2	EJ539662	Wrapping Post 1x17	4
8-C1	EC220410	Elect./C. 1000μF 10WV (Vert. Type)	1

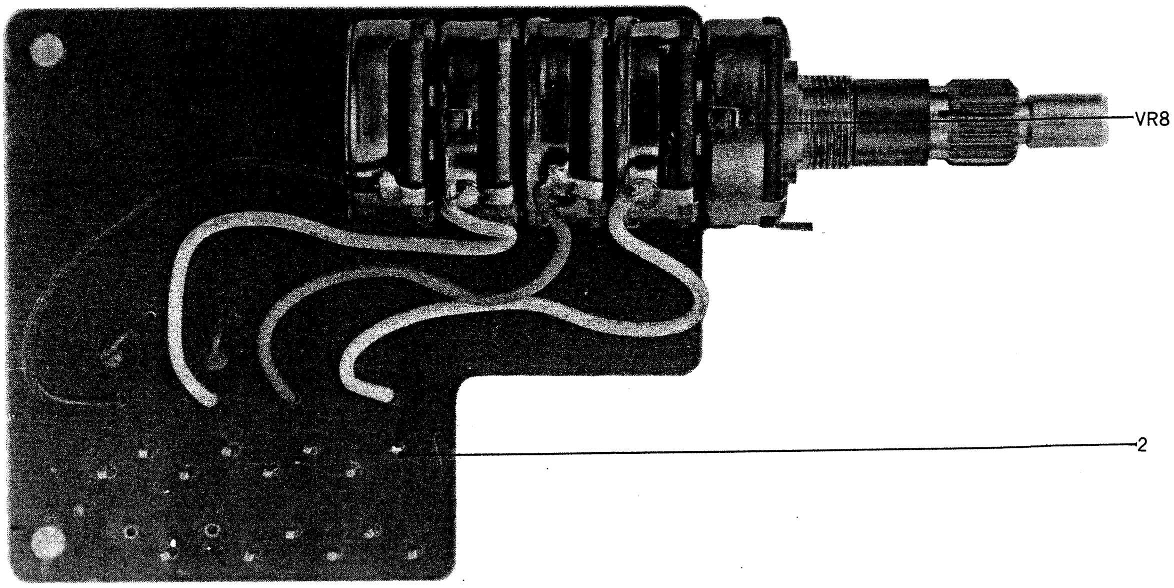
FIG. 9 PHOTO OF TONE CONTROL P.C. BOARD (98-5007) BLOCK



TONE CONTROL P.C. BOARD (98-5007) BLOCK

Symbol No.	Parts No.	Description	Q'ty
9-1x	BA560496	Tone Control P.C. Board Comp. (98-5007)	1
9-TR1	ET539987	Transistor 2SC1312 (F) (G)	2
9-TR2 to 4	ET539987	Transistor 2SC1312 (F) (G)	6
9-VR1	EV557921	Co-axial 2-throw Vol. (w/click) V24L5GPHN 1Z 250kΩx2	1
9-VR2, 3	EV555941	Co-axial 2-throw Vol. (w/click) V24L5GPHN 1 kB 100kΩx2	2
9-2	EJ539673	Wrapping Terminal T5290	13
9-3x	EJ557932	Wrapping Terminal T5303	13
		Capacitor, Vertical Type	
9-C1	EC313108	Elect. 1μF 50WV	2
9-C2	EC346735	Elect. 47μF 50WV	2
9-C3	EC313108	Elect. 1μF 50WV	2
9-C4	EC379214	Mylar 0.047μF(J) 50WV	2
9-C5	EC424708	Mylar 0.0018μF(J) 50WV	2
9-C6	EC379214	Mylar 0.047μF(J) 50WV	2
9-C7, 8	EC220994	Elect. 10μF 25WV	4
9-C9	EC313108	Elect. 1μF 50WV	2
9-C10	EC346735	Elect. 47μF 50WV	1
		Resistor, Stopper Type	
9-R1	ER211465	Carbon RD1/4 1k(J)	2
9-R2	ER211757	Carbon RD1/4 100k(J)	2
9-R3	ER336442	Carbon RD1/4 10k(J)	2
9-R4	ER430042	Carbon RD1/4 2.4k(J)	2
9-R5	ER352045	Carbon RD1/4 3.9k(J)	2
9-R6	ER213467	Carbon RD1/4 820(J)	2
9-R7	ER336442	Carbon RD1/4 10k(J)	2
9-R8	ER435303	Carbon RD1/4 5.1k(J)	2
9-R9	ER211757	Carbon RD1/4 100k(J)	2
9-R10	ER336442	Carbon RD1/4 10k(J)	2
9-R11	ER212883	Carbon RD1/4 4.7k(J)	2
9-R12	ER211757	Carbon RD1/4 100k(J)	2
9-R13	ER336442	Carbon RD1/4 10k(J)	2
9-R14	ER211667	Carbon RD1/4 100(J)	2
9-R15	ER211465	Carbon RD1/4 1k(J)	2
9-R16	ER211757	Carbon RD1/4 100k(J)	2
9-R17	ER357535	Carbon RD1/4 39k(J)	2
9-R18	ER361620	Carbon RD1/4 300(J)	2
9-R19	ER380755	Carbon RD1/4 6.2k(J)	2
9-R20	ER406912	Carbon RD1/4 240(J)	2
9-R21	ER211465	Carbon RD1/4 1k(J)	2
9-R22	ER211667	Carbon RD1/4 100(J)	1

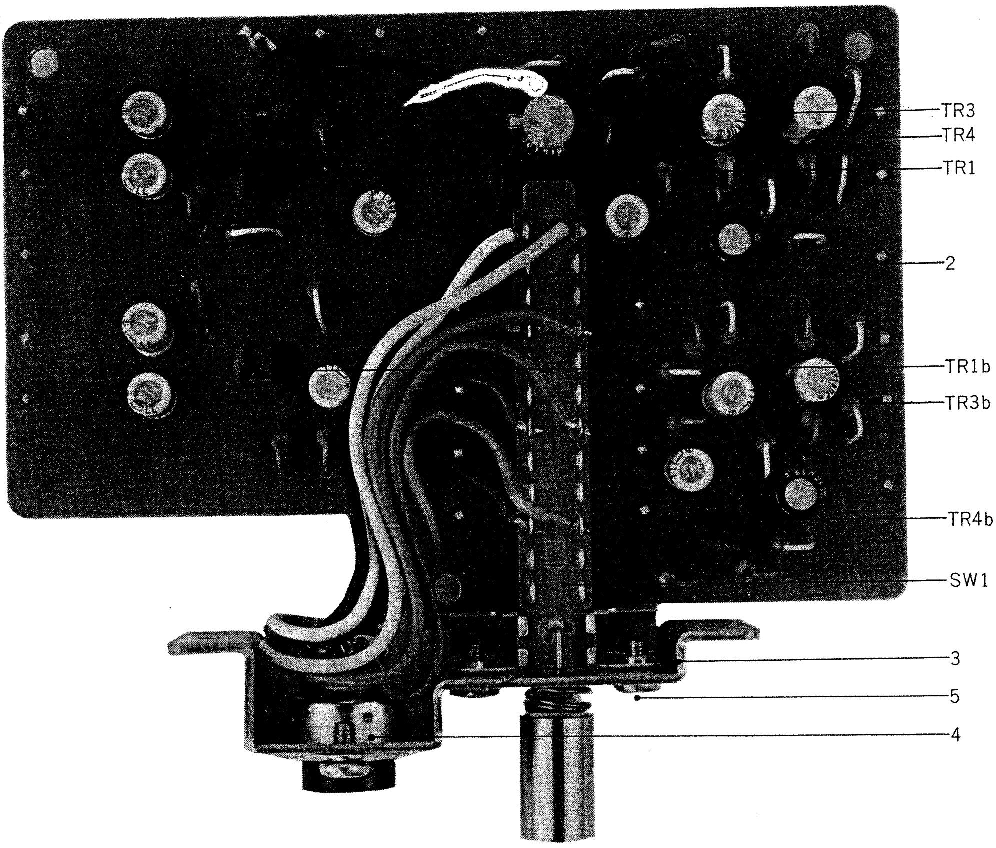
FIG. 10 PHOTO OF VOL. P.C. BOARD (98-5006) BLOCK



VOL. P.C. BOARD (98-5006) BLOCK

Symbol No.	Parts No.	Description	Q'ty
10-1x	BA562206	Vol. P.C. Board Comp. (98-5006)	1
10-VR8	EV557842	Co-axial 4-throw Vol. (w/preset) V24L5DPHN 2BL 250kx4	1
10-2	EJ539662	Wrapping Post 1x17	14
10-R1, 2	ER346994	Carbon/R. RD1/4 18k(J) (Stop. Type)	2

FIG. 11 PHOTO OF REMOTE P.C. BOARD (97-5003) BLOCK

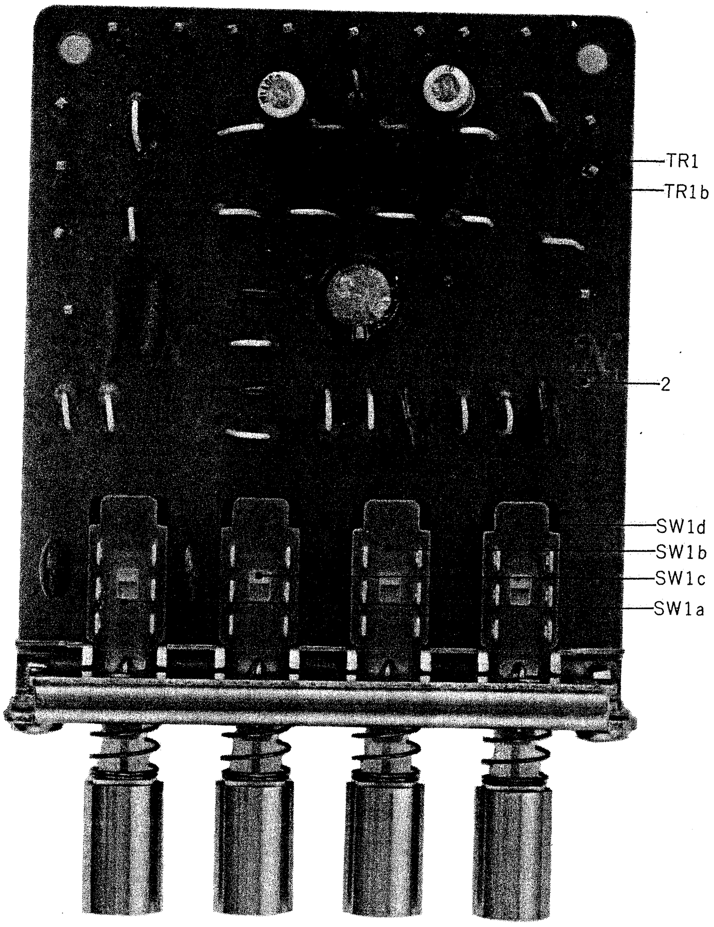


REMOTE P.C. BOARD (97-5003) BLOCK

Symbol No.	Parts No.	Description	Q'ty
11-1x	BA562217	Remote P.C. Board Comp. (97-5003)	1
11-TR1 to 3	ET539987	Transistor 2SC1312 (F) (G)	6
11-SW1	ES591107	Push SW, 1FT-0001 AF-1320	1
11-2	EJ539662	Wrapping Post 1x17	23
11-3	AZ545534	Switch Mt. Angle	1
11-4	EJ557910	Socket CS289	1
11-5	ZS371856	ISO Screw, binding head 3x5	4
		Capacitor, Vertical Type	
11-C1	EC479621	Elect. 1μF 50WV NL	2
11-C2	EC476324	VFM 30PF(J) 50WV	2
11-C3 to 6	EC479621	Elect. 1μF 50WV NL	8
11-C7	EC450066	Elect. 33μF 16WV	2
11-C8	EC476324	VFM 30PF(J) 50WV	2
11-C9	EC479621	Elect. 1μF 50WV NL	2
11-C10	EC346735	Elect. 47μF 50WV	2

Symbol No.	Parts No.	Description	Q'ty
		Resistor, Stopper Type	
11-R1	ER380711	Carbon RD1/4 220k(J)	2
11-R2	ER211757	Carbon RD1/4 100k(J)	2
11-R3, 4	ER336442	Carbon RD1/4 10k(J)	4
11-R5	ER211465	Carbon RD1/4 1k(J)	2
11-R6	ER350100	Carbon RD1/4 68k(J)	2
11-R7	ER361528	Carbon RD1/4 56k(J)	2
11-R8	ER392850	Carbon RD1/4 390k(J)	2
11-R9	ER211858	Carbon RD1/4 12k(J)	2
11-R10	ER357456	Carbon RD1/4 2.2k(J)	2
11-R11	ER343078	Carbon RD1/4 2.7k(J)	2
11-R12	ER211667	Carbon RD1/4 100(J)	2
11-R13	ER380711	Carbon RD1/4 220k(J)	2
11-R14	ER211757	Carbon RD1/4 100k(J)	2
11-R15	ER304290	Carbon RD1/4 10(J)	2
11-R16	ER336442	Carbon RD1/4 10k(J)	2
11-R17	ER363644	Carbon RD1/4 560(J)	1

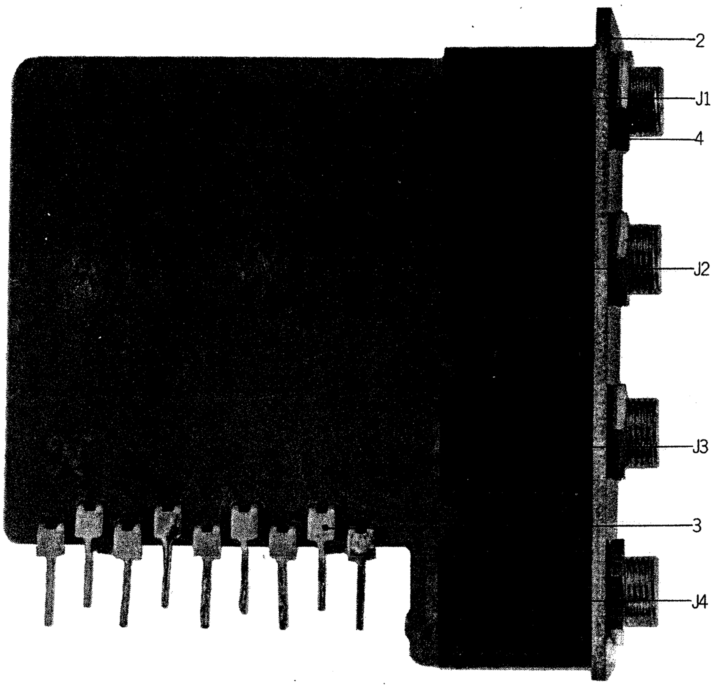
FIG. 12 PHOTO OF FILTER P.C. BOARD (97-5005) BLOCK



FILTER P.C. BOARD (97-5005) BLOCK

Symbol No.	Parts No.	Description	Q'ty
12-1x	BA562184	Filter P.C. Board Comp. (97-5005)	1
12-TR1	ET539987	Transistor 2SC1312 (F) (G)	2
12-SW1	ES591153	Push SW. 4FT-0001 DF-2020	1
12-2	EJ539662	Wrapping Post 1x17	16
		Capacitor, Vertical Type	
12-C1	EC368335	Mylar 0.022μF(J) 50WV	2
12-C2	EC389237	VFM 200PF(J) 50WV	2
12-C3	EC368357	Mylar 0.056μF(J) 50WV	2
12-C4	EC411827	Mylar 0.0082μF(J) 50WV	2
12-C5	EC522516	Tantalum 1μF(M) 25WV (DTS Type)	2
12-C6	EC479621	Elect. 1μF 50WV NL	2
12-C7	EC377212	VFM 47PF(J) 50WV	2
12-C8	EC455354	Elect. 100μF 35WV	1
		Resistor, Stopper Type	
12-R1	ER346994	Carbon RD1/4 18k(J)	2
12-R2	ER357570	Carbon RD1/4 150k(J)	2
12-R3	ER350100	Carbon RD1/4 68k(J)	2
12-R4	ER346544	Carbon RD1/4 3k(J)	2
12-R5	ER429996	Carbon RD1/4 470k(J)	2
12-R6	ER380711	Carbon RD1/4 220k(J)	2
12-R7	ER211757	Carbon RD1/4 100k(J)	2
12-R8	ER304290	Carbon RD1/4 10(J)	2
12-R9	ER336442	Carbon RD1/4 10k(J)	2
12-R10	ER211757	Carbon RD1/4 100k(J)	2
12-R11	ER211667	Carbon RD1/4 100(J)	1

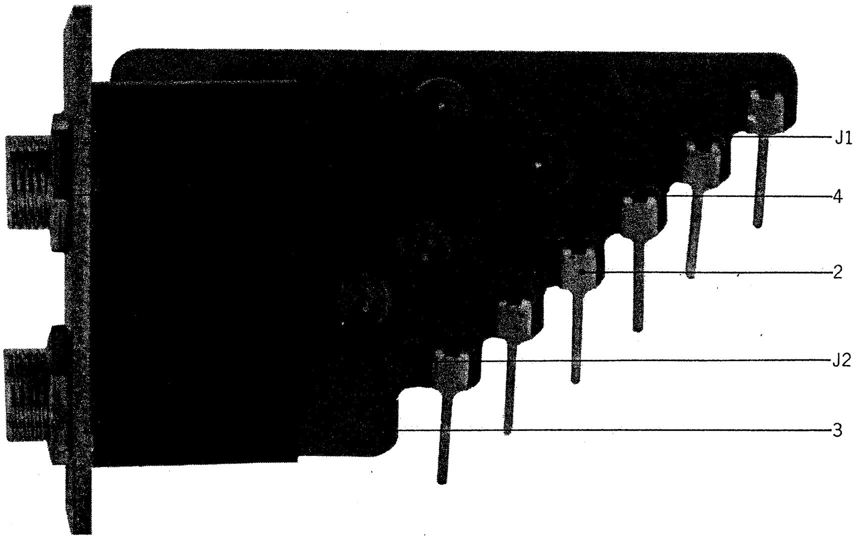
FIG. 13 PHOTO OF MIC, DUB P.C. BOARD (97-5006) BLOCK



MIC, DUB P.C. BOARD (97-5006) BLOCK

Symbol No.	Parts No.	Description	Q'ty
13-1x	BA562241	Mic, Dub P.C. Board Comp. (97-5006)	1
13-J1, 2	EJ437310	Mic. Jack 2PMJ1P	2
13-J3, 4	EJ437321	Jack, 3P Molded 3PMJ 1P	2
13-2	AZ545567	Mic, Dub Mt. Plate	1
13-3	EJ550012	Wrapping Terminal T5280	9
13-4	ZW270191	E Jack Nut	4

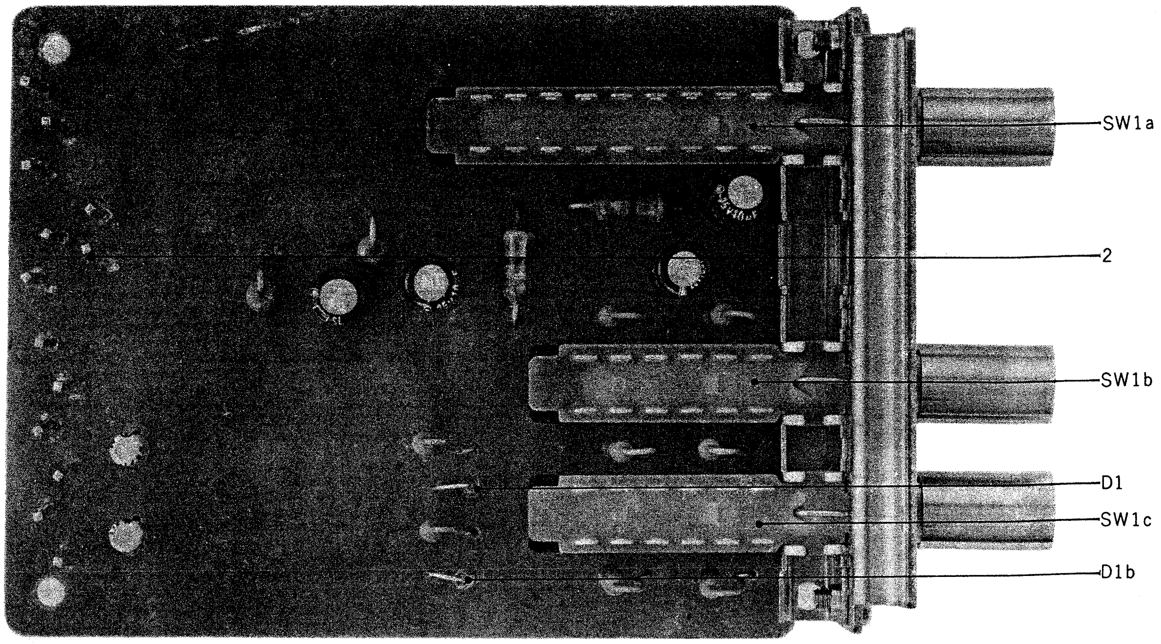
FIG. 14 PHOTO OF HP P.C. BOARD (98-5012) BLOCK



HP P.C. BOARD (98-5012) BLOCK

Symbol No.	Parts No.	Description	Q'ty
14-1x	BA560531	HP P.C. Board Comp. (98-5012)	1
14-J1, 2	EJ437321	Jack, 3P Molded 3PMJ1P	2
14-2	EJ550012	Wrapping Terminal T5280	6
14-3	AZ544836	Phone Jack Mt. Plate	1
14-4	ZW270191	E Jack Nut	2
14-R1 to 4	ER559034	Metal Oxide Film/R. 2W 330Ω(K)	4

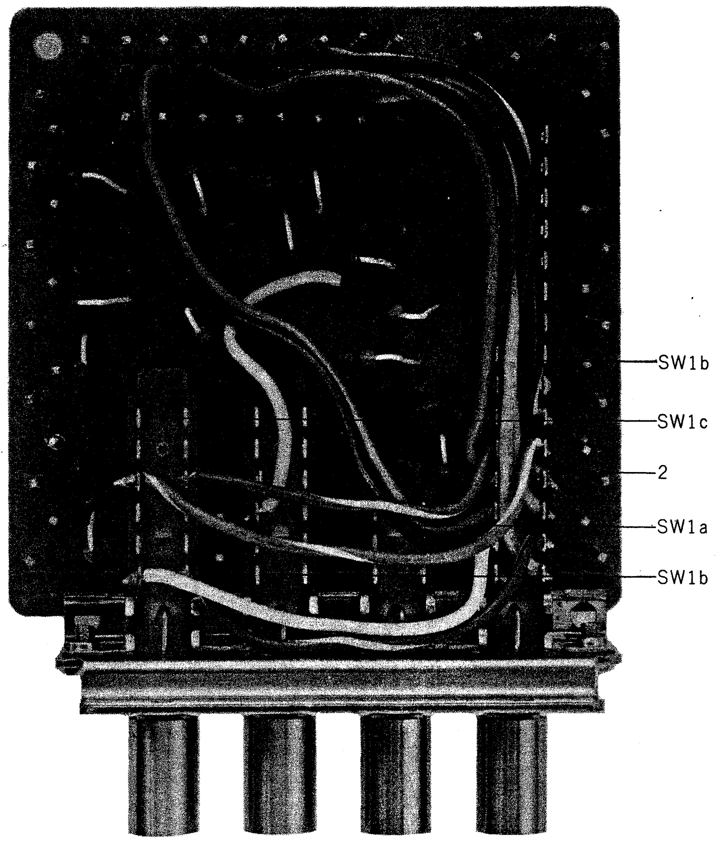
FIG. 15 PHOTO OF METER P.C. BOARD (97-5001) BLOCK



METER P.C. BOARD (97-5001) BLOCK

Symbol No.	Parts No.	Description	Q'ty
15-1x	BA562228	Meter P.C. Board Comp. (97-5001)	1
15-D1	ED219464	Germanium Diode 1N34A	2
15-SW1	ES561960	Push SW. 3FS-14U-503	1
15-2	EJ539662	Wrapping Post 1x17	13
		Capacitor, Vertical Type	
15-C1	EC523282	Solid Aluminum 0.1μF(M) 25WV	2
15-C2, 3	EC220994	Elect. 10μF 25WV	4
		Resistor, Stopper Type	
15-R1	ER349828	Carbon RD1/4 20k(J)	2
15-R2	ER357535	Carbon RD1/4 39k(J)	2
15-R3	ER212883	Carbon RD1/4 4.7k(J)	2
15-R4	ER213467	Carbon RD1/4 820(J)	2
15-R5, 6	ER557796	Carbon RD1/2 470(K)	4

FIG. 16 PHOTO OF TAPE P.C. BOARD (97-5004) BLOCK



TAPE P.C. BOARD (97-5004) BLOCK

Symbol No.	Parts No.	Description	Q'ty
16-1x	BA562230	Tape P.C. Board Comp. (97-5004)	1
16-SW1	ES591142	Push SW. 4FT-0002 DF-2020	1
16-2	EJ539662	Wrapping Post 1x17	50
16-C1 to 10	EC557616	Ceramic/C. UFD06B 390PF(K) 50WV	10
		Resistor, Stopper Type	
16-R1 to 10	ER371946	Carbon RD1/4 2k(J)	10
16-R11, 12	ER336442	Carbon RD1/4 10k(J)	2

FIG. 17 PHOTO OF BALANCE P.C. BOARD (97-5002) BLOCK

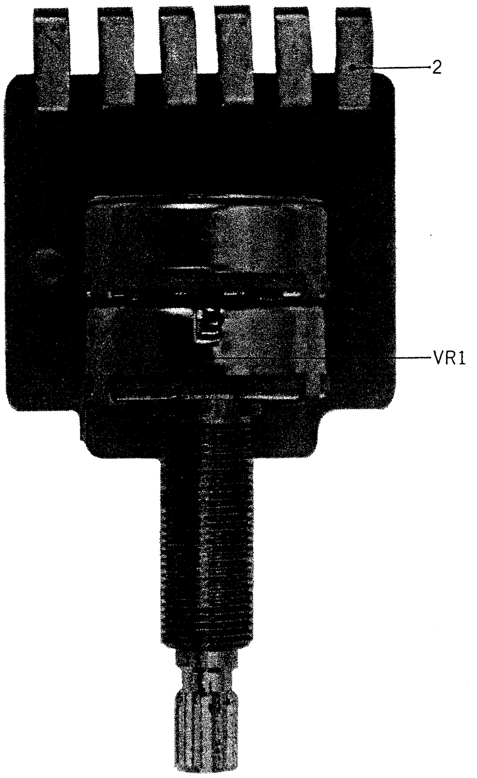
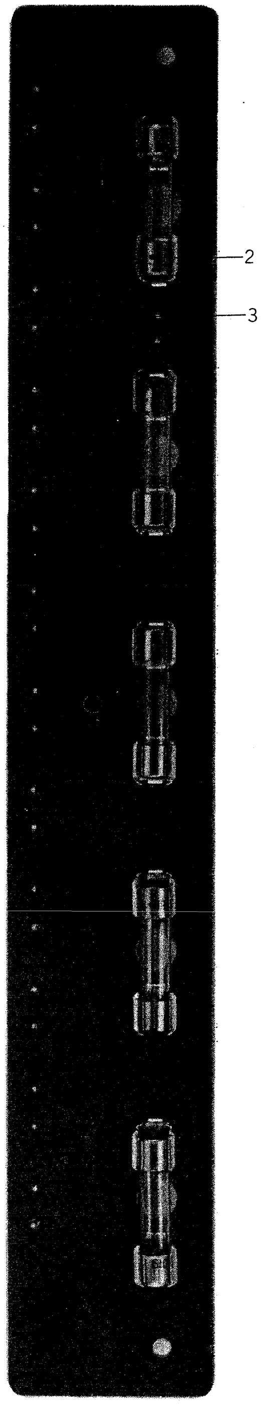


FIG. 18 PHOTO OF LAMP. P.C. BOARD (97-5008) BLOCK



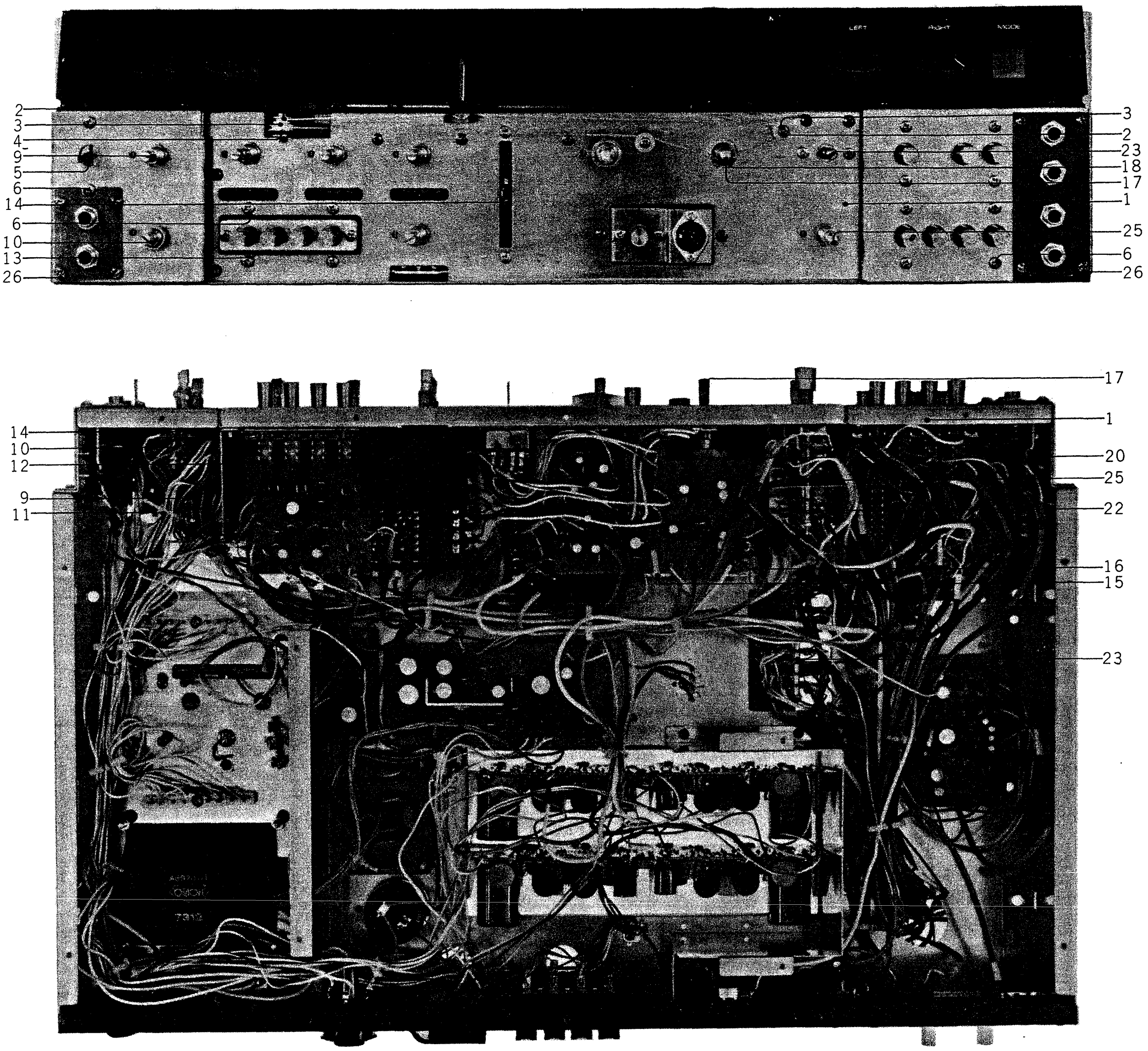
BALANCE P.C. BOARD (97-5002) BLOCK

Symbol No.	Parts No.	Description	Q'ty
17-1x	BA562195	Balance P.C. Board Comp. (97-5002)	1
17-VR1	EV557921	Co-axial 2-throw Vol. (w/click) V24L5GPHN 1Z 250kΩx2	1
17-2	EJ539673	Wrapping Terminal T5290	6

LAMP. P.C. BOARD (97-5008) BLOCK

Symbol No.	Parts No.	Description	Q'ty
18-1x	BA562274	Lamp. P.C. Board Comp. (97-5008)	1
18-2	EJ514822	Fuse Holder, P.C. Board S-N5051	10
18-3	EJ539662	Wrapping Post 1x17	17

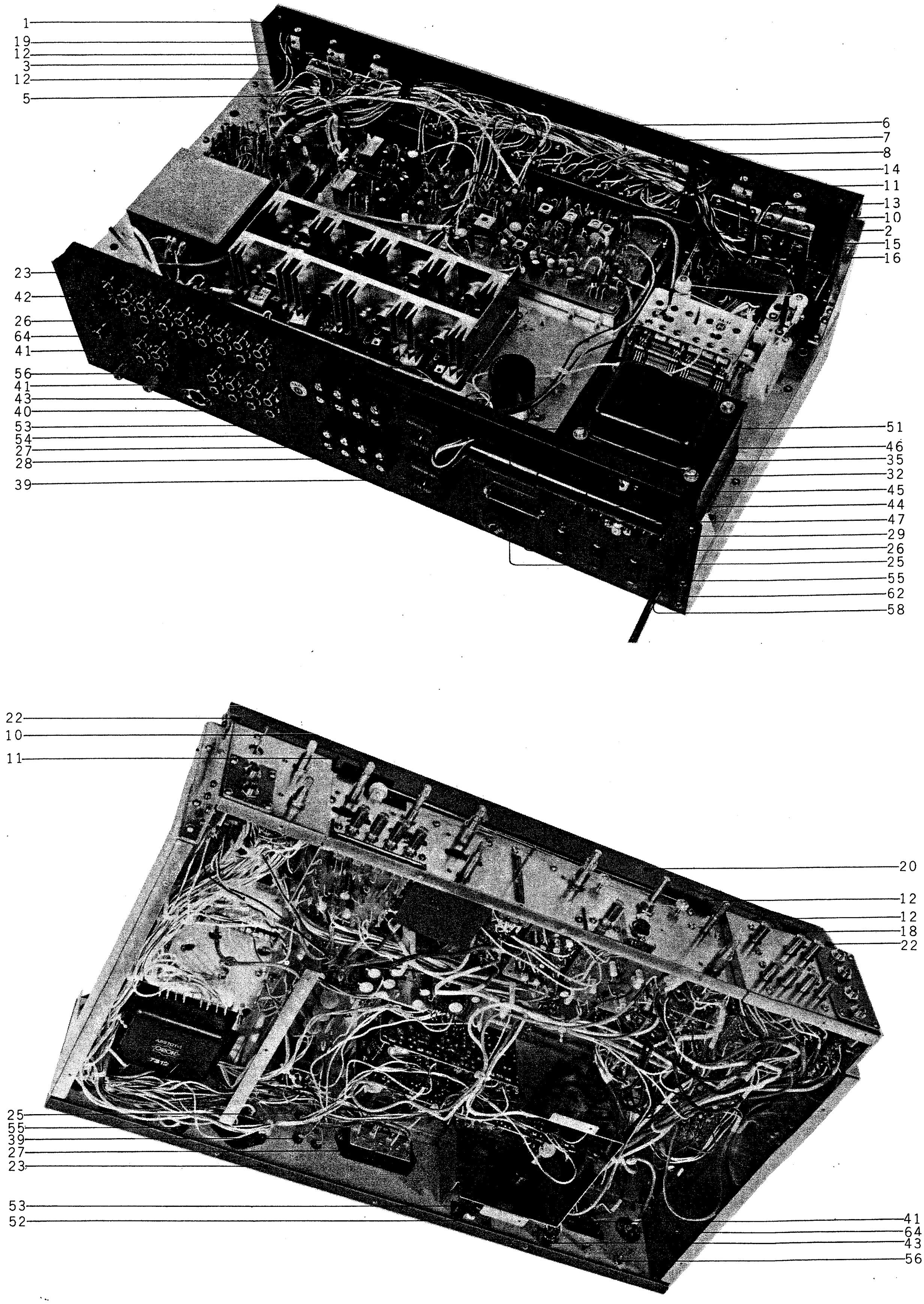
FIG. 19 PHOTO OF FRONT CHASSIS BLOCK



FRONT CHASSIS BLOCK

Ref. No.	Parts No.	Description	Schematic No.	Q'ty
19-1	AZ545782	Front Chassis, w/chassis L,R	97-5016	1
19-2	ZS530684	Roller Screw B (L=13)	91-5010	3
19-3	MR530662	Roller B (D=10)	91-5009	3
19-4	MR530651	Roller A (D=14)	91-5008	1
19-5	ES468448	Lever SW. SDD4LFJO (LPS60122FJOO) (Power)	25-4-12	1
19-6	ZS371856	ISO Screw, binding head 3x5		28
19-7x	EC551160	Ceramic/C. NB821 YZ 0.01μF(Z)1.4 kWV	24-5-55	2
19-8x	EC565896	Ceramic/C. DP6600 YM 0.01μF(P)1.4 kWV	24-5-58	2
19-9	ES561914	Rotary SW. SR32N 3-8-2 25KC	25-7-34	1
19-10	ES561925	Rotary SW. SR32N 2-8-4 25KC	25-7-32	1
19-11	MZ229138	Wire Bundle Holder N-108	2-35-1	16
19-12	AZ545512	Rotary SW. Shield Plate	97-5017	1
19-13	AZ545523	Push SW. Mt. Plate	97-5018	3
19-14	HV557741	4-throw Slide Vol. (center click) VJ458G4RN 1Z 250kΩx4	36-34-1	1
19-15	EJ557728	Wire Clip 0128	2-7-19	1
19-16	EJ514034	PC Support	2-7-20	1
19-17	MS530752	Tuning Shaft	91-5018	1
19-18	AA530741	Tuning Metal	91-5017	1
19-19x	ZW561993	Washer D6.1x10x1t		2
19-20	BF530763	Flywheel	91-5019	1
19-21x	ZS462936	ISO Set Screw, hexagon socket 3x5(cup/p.)		1
19-22	AZ545545	Selector SW. Mt. Angle	97-5020	1
19-23	ES561936	Rotary SW. Y7-17-5(Selector)	25-7-37	1
19-24x	ER427961	Carbon/R. RD1/4 43kΩ(J) (Insu. Type)	35-9-5	2
19-25	ES557763	Rotary SW. SR26N 5-15-5 35KH	25-6-63	1
19-26	ZS447772	Tapping Screw #2 3x6 (BR)		8
19-27x	EZ585134	Mic, Dub Spacer	97-5062	1

FIG. 20 PHOTO OF SCALE MT. PLATE/REAR PANEL BLOCK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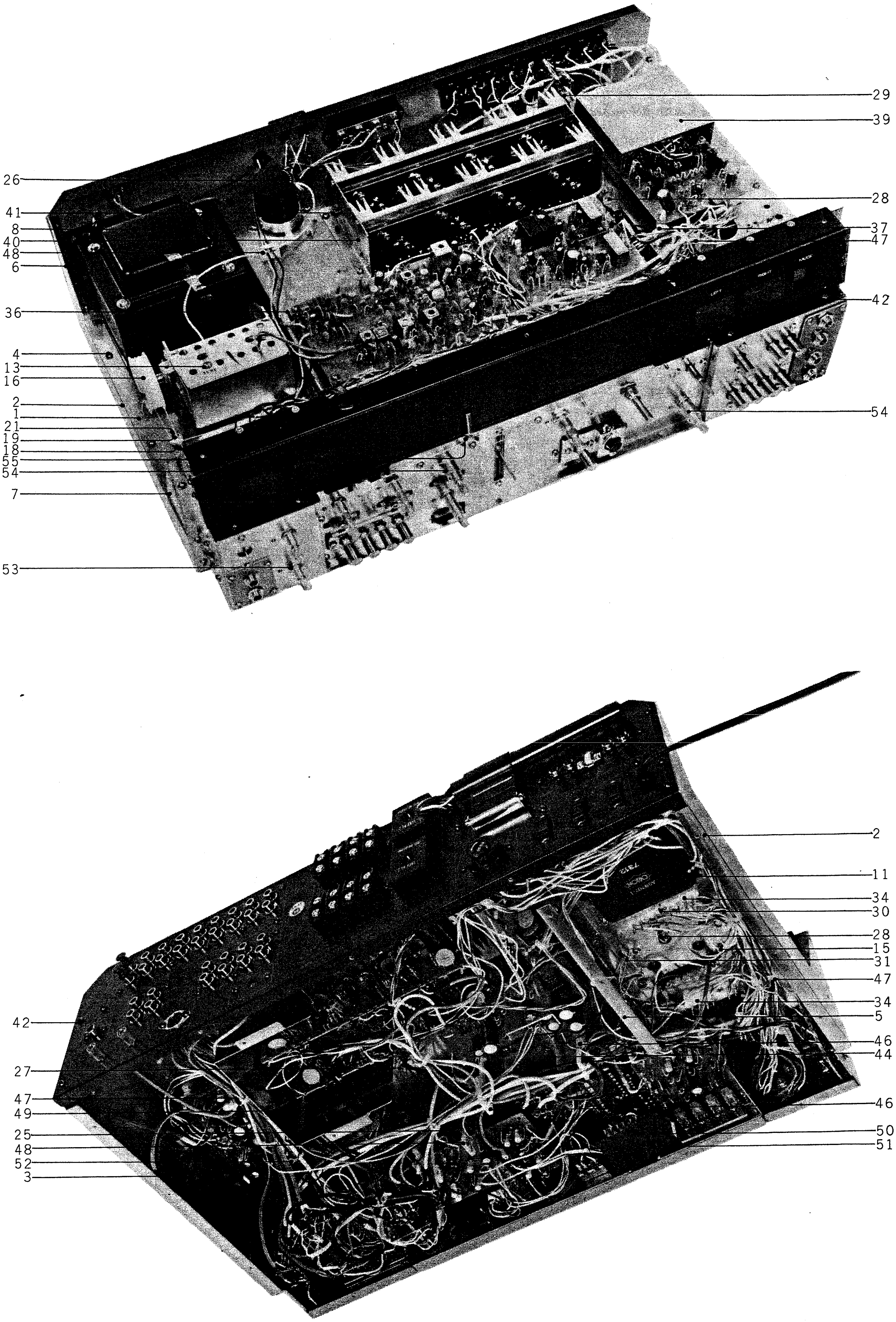
SCALE MT. PLATE/REAR PANEL BLOCK

Ref. No.	Parts No.	Description	Schematic No.	Q'ty
	SCALE MT. PLATE BLOCK			
20-1	AZ545760	Scale Plate Mt. Chassis	97-5023	1
20-2	AA530785	Lamp Case	91-5021	1
20-3	ZS447772	Tapping Screw #2 3x6 (BR)		24
20-4x	EL539684	Fuse Type Lamp 8V 0.3A	28-2-27	5
20-5	MZ259233	Wire Band C	3A-745	2
20-6	AA545668	Lamp Holder	97-5025	1
20-7	AZ545670	Lamp Holder Case	97-5026	1
20-8	EL550045	Cord Lamp 8V 50 mA (ST. Ind.)	28-2-30	12
20-9x	SM531336	Illumination Plate, Pointer	91-5065	1
20-10	EM551248	Signal Meter KL-218L-25	46-1-71	1
20-11	EM551250	Tuning Meter KL-218L-27	46-1-70	1
20-12	EM539706	Level Meter KL-218L-28	46-1-69	2
20-13	AA533384	Meter Mt. Angle	94-5030	2
20-14	ZS371856	ISO Screw, binding head 3x5		5
20-15	AA530820	Meter Case	91-5025	4
20-16	EJ367986	Fuse Holder 1P AC125V 5A	40-1-8	4
20-17x	EL539684	Fuse Type Lamp 8V 0.3A	28-2-27	4
20-18	EM558044	Indicator (2-4CH)	28-2-31	1
20-19	AA544926	Indicator Support	98-5045	1
20-20	AA547446	Scale Plate B	97-5024	1
20-21x	AA547435	Scale Plate A(J)	97-5024	1
20-22	EJ556143	Canoe Clip (Large)	2-7-35	2
	REAR PANEL BLOCK			
20-23	SP545758	Rear Panel A	97-5027	1
20-24x	SP569621	Rear Panel B (CSA)	97-5027	1
20-25	EJ233370	Socket (Volt. Selector) S-18010	40-2-3	1
20-26	ZS552611	ISO Screw, pan head 3x8 (Black)		6
20-27	EJ539785	Consent, Speaker (2-throw)	31-1-96	2
20-28	ZS570385	ISO Taptight Screw, pan head 3x8 (Black)		16
20-29	AA510625	Antenna Terminal Plate 5P	32-1-29	1
20-30x	ZW348107	ISO Nut M3		5
20-31x	BT444137	Balum Trans. 75Ω–300Ω	23-1-129	1
20-32	ES320016	Slide SW. MFS-201NB	25-3-21	1
20-33x	ER212016	Carbon/R. RD1/4 150Ω(J) (Stop. Type)	35-10-1	1
20-34x	ER551621	Carbon/R. RD1/2 150Ω(J) (Insu. Type)	35-9-15	1
20-35	ZW562015	ISO Screw, binding head 2x4		2
20-36x	ZW273802	Toothed Lock Washer M3		3
20-37x	ZW273778	Earth Lug M3		1
20-38x	ZS553904	ISO Screw, binding head 3x8		1
20-39	EJ539796	Fuse Holder 2P	40-1-29	2
20-40	ZS447761	Tapping Screw #2 3x6 (BR) (Black)		8
20-41	EJ539763	Wrapping Pin Jack B 4P T5346(B)	31-1-106	6
20-42	EJ551340	Wrapping Pin Jack B 6P T5347(B)	31-1-102	1
20-43	EJ299305	Jack, 5P Din	31-1-1	1
20-44	AA530910	Antenna Channel	91-5029	1
20-45	AA557886	Bar Antenna (970)	55-1-16	1
20-46	AA378268	Antenna Support	AA-5552	1
20-47	ZS379451	ISO Screw, round head 4x50		1
20-48x	ZW273914	Spring Washer M4		2
20-49x	ZW556132	ISO Nut M4		1
20-50x	ZW551373	Washer, D4.2x8x0.5t		2
20-51	EZ382263	Strain Relief SR-4K-4	2-7-12	1
20-52	AZ544950	Volume Retaining Parts	98-5049	1
20-53	EV557897	Vol. V16L4N B1K	36-6-2	1
20-54	ZS552622	ISO Screw, pan head 3x6 (Black)		2
20-55	EJ378944	Socket, AC U/L S-I 9122	31-1-47	3
20-56	EZ486257	Metal Terminal T-10	32-1-27	2
20-57x	ER428567	Solid/R. RC1/2W 2.2M(K)	35-5-4	1
20-58	EW540112	AC Cord (CUL) 2.5M	26-3-19	1
20-59x	EW486797	Power Supply Cord VDE (WG)	26-3-26	1
20-60x	EW315448	Australia Cord (3 core)	26-3-11	1
20-61x	EW524845	AC Cord (JPN) 2.5M	26-3-31	1
20-62	EZ382263	Strain Relief SR-4K-4	2-7-12	1
20-63x	EZ246936	Strain Relief SR-6W-1 (WG, 3 core)	2-7-8	1
20-64	EJ354936	1P Pin-Jack	31-1-32	1

FIG. 21 PHOTO OF ASSEMBLY BLOCK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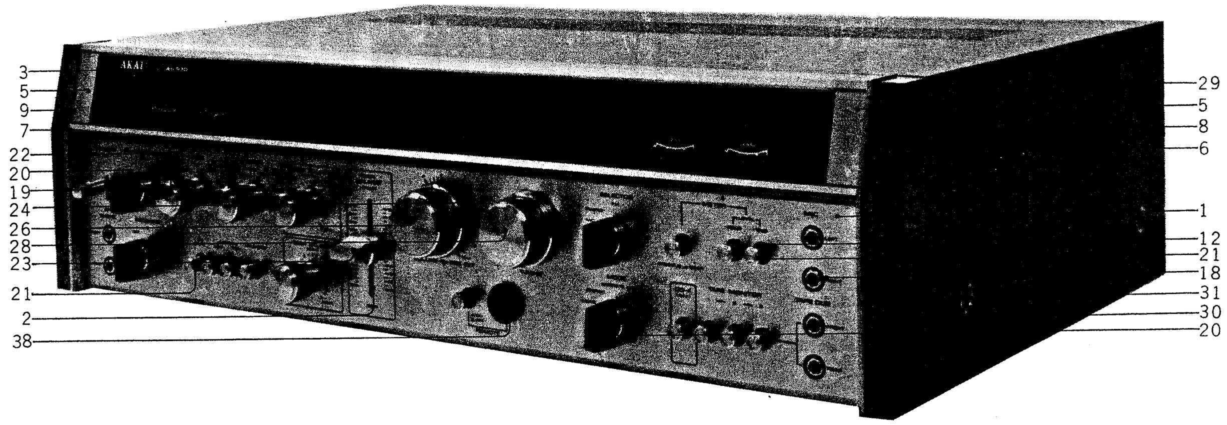
ASSEMBLY BLOCK

Ref. No.	Parts No.	Description	Schematic No.	Q'ty
21-1	AZ545771	Main Chassis, w/sub chassis	97-5011	1
21-2	AZ545635	Side Plate L	97-5013	1
21-3	AZ545646	Side Plate R	97-5014	1
21-4	ZS447772	Tapping Screw #2 3x6 (BR)		80
21-5	AZ545657	Supporting Plate	97-5015	1
21-6	AZ545130	Supporting Plate A	98-5029	1
21-7	AZ545141	Supporting Plate B	98-5029	1
21-8	BT561903	Power Trans. AS-970T-1	38-4-255	1
21-9x	BT570464	Power Trans. AS-970T-2 (CSA)	38-4-271	1
21-10x	ZW273914	Spring Washer M4		4
21-11	ZW510660	ISO Nut M4		4
21-12x	ZW273881	Earth Lug M4		1
21-13	AF510300	Front End FL-315U19	57-2-19	1
21-14x	AF510298	Front End FL-315J17 (J)	57-2-18	1
21-15	ZS321298	ISO Screw, binding head 3x8		5
21-16	MR530706	Pulley	91-5012	1
21-17x	ZG549011	Tuning Spring	91-5094	1
21-18	AA532102	Roller Mt. Angle	94-5007	1
21-19	MR530651	Roller A (D=10)	91-5008	3
21-20x	MR530662	Roller B (D=14)	91-5009	2
21-21	ZW530673	Roller Screw A (L=9)	91-5010	3
21-22x	AZ545591	Roller Mt. Angle (Small)	97-5037	1
21-23x	ZS530684	Roller Screw B (L=13)	91-5010	1
21-24x	AZ547367	Chassis Reinforcement (Slide)	97-5049	1
21-25	AZ545578	Remote P.C. Board Support Angle	97-5030	1
21-26	EC557695	Elect./C. 3,300μF 80WV (Lug Type)	24-10-79	1
21-27	EJ551035	Wrapping Terminal 4P T5251	32-1-36	4
21-28	EJ539447	Earth Terminal 2P T-4460	32-1-32	3
21-29	EJ561982	Lug Plate 4P T-5247	33-5-8	1
21-30	ZS447805	Tapping Screw #2 3x12 (BR)		3
21-31	EJ254970	Lug Plate KP1L1	33-3-3	1
21-32x	ER452777	Carbon/R. RD1/4 160k(J) (Insu. Type)	35-9-5	2
21-33x	ER364994	Carbon/R. RD1/4 39k(J) (Insu. Type)	35-9-5	2
21-34	EJ550067	Lug Plate 4P T-5305	33-5-5	2
21-35x	EJ255025	Lug Plate KP2L1	33-3-4	1
21-36	AA530627	IF P.C. Board Mt. Plate	91-5005	2
21-37	EJ514034	PC Support	2-7-20	23
21-38x	ER489780	Carbon/R. RD1/4 300Ω(J) (Insu. Type)	35-9-5	1
21-39	AZ547356	SQ Shield	97-5050	1
21-40	AZ545163	Heat-sink Retaining Plate	98-5021	2
21-41	ZS371856	ISO Screw, binding head 3x5		9
21-42	ZS447761	Tapping Screw #2 3x6 (BR) (Black)		14
21-43x	EZ545602	P.C. Board Support	97-5038	1
21-44	AZ545556	Vol. P.C. Board Support	97-5021	1
21-45x	AZ545613	Filter P.C. Board Support	97-5039	1
21-46	EJ557717	Wire Clip 0017	2-7-26	3
21-47	EJ551057	Wire Clip 220-JD481010-0021	2-7-27	7
21-48	EJ557728	Wire Clip 0128	2-7-19	2
21-49	AZ545681	Main Amp. Shield	97-5031	1
21-50	AA545580	Balance Insulator Plate	97-5033	1
21-51	EJ556143	Canoe Clip (Large)	2-7-35	1
21-52	EJ553948	Wire Bandle Holder B-100	2-35-3	3
21-53	AA531360	Stop Collar 1 (L=2.5)	91-5074	1
21-54	AA531371	Stop Collar 2 (L=12.5)	91-5074	2
21-55	AA530954	Dial Pointer	91-5039	1
21-56x	ZS406416	Tapping Screw #2 3x8 countersunk		3
21-57x	ZS447840	Tapping Screw #2 3x8 (BR)		5

FIG. 22 PHOTO OF FINAL ASSEMBLY BLOCK



FINAL ASSEMBLY BLOCK

Ref. No.	Parts No.	Description	Schematic No.	Q'ty
	FRONT PANEL BLOCK			
22-1	SP545747	Front Panel	97-5028	1
22-2	SE546208	Slide Mask	98-5069	1
22-3	AZ531055	Front Plate 8	91-5044	1
22-4x	AA530976	Retaining Plate Cushion	91-5043	2
22-5	AA531145	Fitting 2	91-5045	2
22-6	AA541517	Side Molding A (Right)	91-5082	1
22-7	AA541528	Side Molding B (Left)	91-5082	1
22-8	AA531156	Side Fitting A (Right)	91-5046	1
22-9	AA531167	Side Fitting B (Left)	91-5046	1
22-10x	ZS447805	Tapping Screw #2 3x12 (BR)		6
22-11x	ZS447840	Tapping Screw #2 3x8 (BR)		2
22-12	AA545905	Push Button Bush	98-5061	12
	ASSEMBLY BLOCK			
22-13x	AZ545736	Bottom Plate	97-5034	1
22-14x	ZS447772	Tapping Screw #2 3x6 (BR)		11
22-15x	SA377190	Rubber Foot, LM	LM-404	4
22-16x	ZW419646	Washer (SPC) D4.5x9.8x0.5t		4
22-17x	ZS463375	Tapping Screw #2 4x15 (Truss)		4
22-18	EZ436217	Collar For Jack	MC-5006	6
22-19	SK531314	Power knob	91-5060	1
22-20	SK547964	Selector Knob	98-5080	4
22-21	SK531224	Push Button Knob	91-5051	12
22-22	SK531281	Single Knob	91-5057	4
22-23	SK545027	Slide Knob	98-5055	1
22-24	SK531347	Volume Knob Ring	91-5071	1
22-25x	ZW493312	Washer (Nylon) D6.2x10x1t		1
22-26	SK531358	Volume Knob	91-5073	1
22-27x	ZS446422	ISO Set Screw, hexagon socket 4x8(cup/p.)		2
22-28	SK531213	Tuning Knob	91-5050	1
22-29	BC545725	Cabinet	97-5035	1
22-30	ZW548010	Spot Facing Washer	MU-6028	4
22-31	ZW552824	ISO Screw, binding head 4x18 (Black)		4
22-32x	EF562691	Fuse 2.5A 250V	49-1-50	4
22-33x	EF424811	Fuse ST-2 2.5A (CSA)	39-1-26	4
22-34x	EF575234	Fuse 6A 250V	39-1-50	1
22-35x	EF563657	Fuse 3A 250V	39-1-50	1
22-36x	AA539537	Fuse Holder Cover 2P	2-34-78	2
22-37x	ZS379350	ISO Screw, pan head 3x6		2
22-38	AA545894	Remote Jack Cover	98-5062	1
22-39x	EA576112	Fuse P.C. Board A (CSA)	97-5057	1
22-40x	AA569586	Fuse Angle A (CSA)	97-5058	1
22-41x	EF277424	Fuse ST-4 0.8A (CSA)	39-1-28	2
22-42x	EF459843	Fuse ST-2 5A (CSA)	39-1-26	1
22-43x	EJ514822	Fuse Holder, P.C. Board S-N5051 (CSA)	40-1-28	16
22-44x	EJ539662	Wrapping Post 1x17 (CSA)	32-1-48	16
22-45x	EA549448	Fuse P.C. Board (CSA)	92-5022	2
22-46x	AA569610	Barrier (CSA)	97-5059	1
22-47x	EJ550912	Speaker Plug ASP-1	42-1-64	3
22-48x	EJ552778	Short Pin Plug P-0107	42-1-65	2
22-49x	AA560092	FM Antenna AFM-1B (5003-03)	55-1-18	1
22-50x	AA560081	FM Antenna AFM-1A (5003-04) (J)	55-1-18	1
22-51x	EF562544	Fuse 6A 125V	39-1-47	1
22-52x	EF562680	Fuse 5A 125V	39-1-47	1

INDEX

Parts No.	Ref. No. & Symbol No.	Parts No.	Ref. No. & Symbol No.	Parts No.	Ref. No. & Symbol No.	Parts No.	Ref. No. & Symbol No.	Parts No.	Ref. No. & Symbol No.
AA378268	20-46	BA570453	6-2x	EC380621	2-C20, 21	EJ254970	21-31	ER211667	1-R44, 45
AA510625	20-29	BA570903	4-1x	EC389237	4-C8	EJ255025	21-35x	ER211667	1-R52, 53
AA530627	21-36	BA574795	2-1x	EC389237	12-C2	EJ299305	20-43	ER211667	3-R52
AA530741	19-18	BC545725	22-29	EC389474	2-C6	EJ354936	20-64	ER211667	9-R14
AA530785	20-2	BF530763	19-20	EC389474	5-C6	EJ367986	20-16	ER211667	9-R22
AA530820	20-15	BT379991	1-T5	EC403468	6-C1, 2	EJ378944	20-55	ER211667	11-R12
AA530910	20-44	BT380384	1-T6	EC411827	12-C4	EJ437310	13-J1, 2	ER211667	12-R11
AA530954	21-55	BT443610	1-T7	EC419231	1-C8	EJ437321	13-J3, 4	ER211757	1-R26
AA530976	22-4x	BT444137	20-31x	EC419231	1-C37	EJ437321	14-J1, 2	ER211757	3-R20, 21
AA531145	22-5	BT561903	21-8	EC423562	1-C36	EJ514034	19-16	ER211757	3-R29
AA531156	22-8	BT570464	21-9x	EC424708	9-C5	EJ514034	21-37	ER211757	3-R42
AA531167	22-9	EA549448	22-45x	EC450055	5-C9	EJ514822	18-2	ER211757	3-R46
AA531360	21-53	EA576112	22-39x	EC450066	11-C7	EJ514822	22-43x	ER211757	4-R5
AA531371	21-54	EC220127	6-C6, 7	EC450527	1-C23	EJ539447	21-28	ER211757	9-R2
AA532102	21-18	EC220410	8-C1	EC450527	1-C33	EJ539662	1-4	ER211757	9-R9
AA533384	20-13	EC220432	2-C8, 9	EC450527	1-C52	EJ539662	2-2	ER211757	9-R12
AA539537	22-36x	EC220432	2-C14, 15	EC450527	3-C11	EJ539662	3-2	ER211757	9-R16
AA541517	22-6	EC220432	5-C10	EC450527	3-C13, 14	EJ539662	5-2	ER211757	11-R2
AA541528	22-7	EC220678	5-C2	EC450527	3-C16	EJ539662	6-5	ER211757	11-R14
AA542992	4-2	EC220994	9-C7, 8	EC450527	3-C20, 21	EJ539662	7-2	ER211757	12-R7
AA544926	20-19	EC220994	15-C2, 3	EC455354	3-C1	EJ539662	8-2	ER211757	12-R10
AA545117	6-3	EC228745	4-C10	EC455354	12-C8	EJ539662	10-2	ER211858	1-R24
AA545580	21-50	EC250841	1-C35	EC476324	11-C2	EJ539662	11-2	ER211858	1-R33
AA545624	4-3x	EC250841	1-C49, 50	EC476324	11-C8	EJ539662	12-2	ER211858	11-R9
AA545668	20-6	EC250841	2-C2	EC479621	11-C1	EJ539662	15-2	ER211950	5-R3
AA545894	22-38	EC250975	2-C12, 13	EC479621	11-C3 to 6	EJ539662	16-2	ER212016	4-R12
AA545905	22-12	EC290520	3-C18, 19	EC479621	11-C9	EJ539662	18-3	ER212016	20-33x
AA547435	20-21x	EC290520	4-C4	EC479621	12-C6	EJ539662	22-44x	ER212264	1-R27
AA547446	20-20	EC290520	4-C6	EC492142	1-C34	EJ539673	9-2	ER212264	3-R9
AA557886	20-45	EC290520	5-C4	EC492142	1-C38 to 42	EJ539673	17-2	ER212264	6-R10
AA560081	22-50x	EC290531	1-C27	EC492142	1-C44 to 47	EJ539763	20-41	ER212264	6-R12
AA560092	22-49x	EC313108	1-C26	EC492142	1-C51	EJ539785	20-27	ER212477	1-R32
AA569586	22-40x	EC313108	1-C30	EC492142	1-C53	EJ539796	20-39	ER212477	5-R9, 10
AA569610	22-46x	EC313108	3-C2	EC517138	5-C1	EJ550012	4-6	ER212681	1-R2
AF510298	21-14x	EC313108	9-C1	EC522516	12-C5	EJ550012	13-3	ER212681	1-R5
AF510300	21-13	EC313108	9-C3	EC522551	3-C12	EJ550012	14-2	ER212681	1-R11, 12
AZ531055	22-3	EC313108	9-C9	EC522551	3-C15	EJ550067	21-34	ER212681	1-R14
AZ544836	14-3	EC313121	5-C11	EC522551	3-C17	EJ550912	22-47x	ER212681	1-R34
AZ544950	20-52	EC313244	2-C3	EC523282	15-C1	EJ551035	21-27	ER212681	2-R24
AZ545130	21-6	EC320051	1-C43	EC538435	3-C3	EJ551057	21-47	ER212872	1-R4
AZ545141	21-7	EC321221	4-C2	EC551160	6-C10	EJ551340	20-42	ER212883	1-R7
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AZ545567	13-2	EC329883	5-C7	EC551441	1-C28, 29	EJ557728	21-48	ER212883	6-R1
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AZ545635	21-2	EC336104	1-C18	EC557616	16-C1 to 10	EL539684	20-4x	ER213030	3-R33
AZ545646	21-3	EC336104	1-C54	EC557627	6-C8, 9	EL539684	20-17x	ER213096	5-R15
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AZ545670	20-7	EC336216	1-C21, 22	EC565896	19-8x	EM539706	20-12	ER213467	15-R4
AZ545681	21-49	EC336216	1-C24	ED219464	1-D9 to 13	EM551248	20-10	ER213715	4-R1
AZ545736	22-13x	EC337500	2-C10, 11	ED219464	2-D1, 2	EM551250	20-11	ER304290	1-R13
AZ545760	20-1	EC337500	3-C8	ED219464	15-D1	EM558044	20-18	ER304290	1-R16, 17
AZ545771	21-1	EC339096	2-C5	ED224526	6-D1 to 8	EO443766	2-L1	ER304290	11-R15
AZ545782	19-1	EC346735	9-C2	ED224526	6-D11 to 14	EO443777	2-L2	ER304290	12-R8
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BA560687	8-1x	EC354947	4-C1	ED556514	4-D1	ER211465	1-R47	ER306887	1-R3
BA562184	12-1x	EC364947	4-C5	ED558033	7-D1 to 4	ER211465	1-R51	ER306887	1-R10
BA562195	17-1x	EC368256	1-C4	ED558033	8-D1 to 4	ER211465	2-R8	ER306887	3-R4
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BA562230	16-1x	EC368357	12-C3	EF562544	22-51x	ER211465	5-R17	ER306887	6-R11
BA562241	13-1x	EC373296	4-C12	EF562680	22-52x	ER211465	9-R1	ER324202	4-R9
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SA377190	22-15x
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ZW273778	20-37x
ZW273802	20-36x
ZW273881	21-12x
ZW273914	21-10x
ZW273914	20-48x
ZW348107	20-30x
ZW419646	22-16x
ZW426622	4-8x
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ZW556132	20-49x
ZW561993	19-19x
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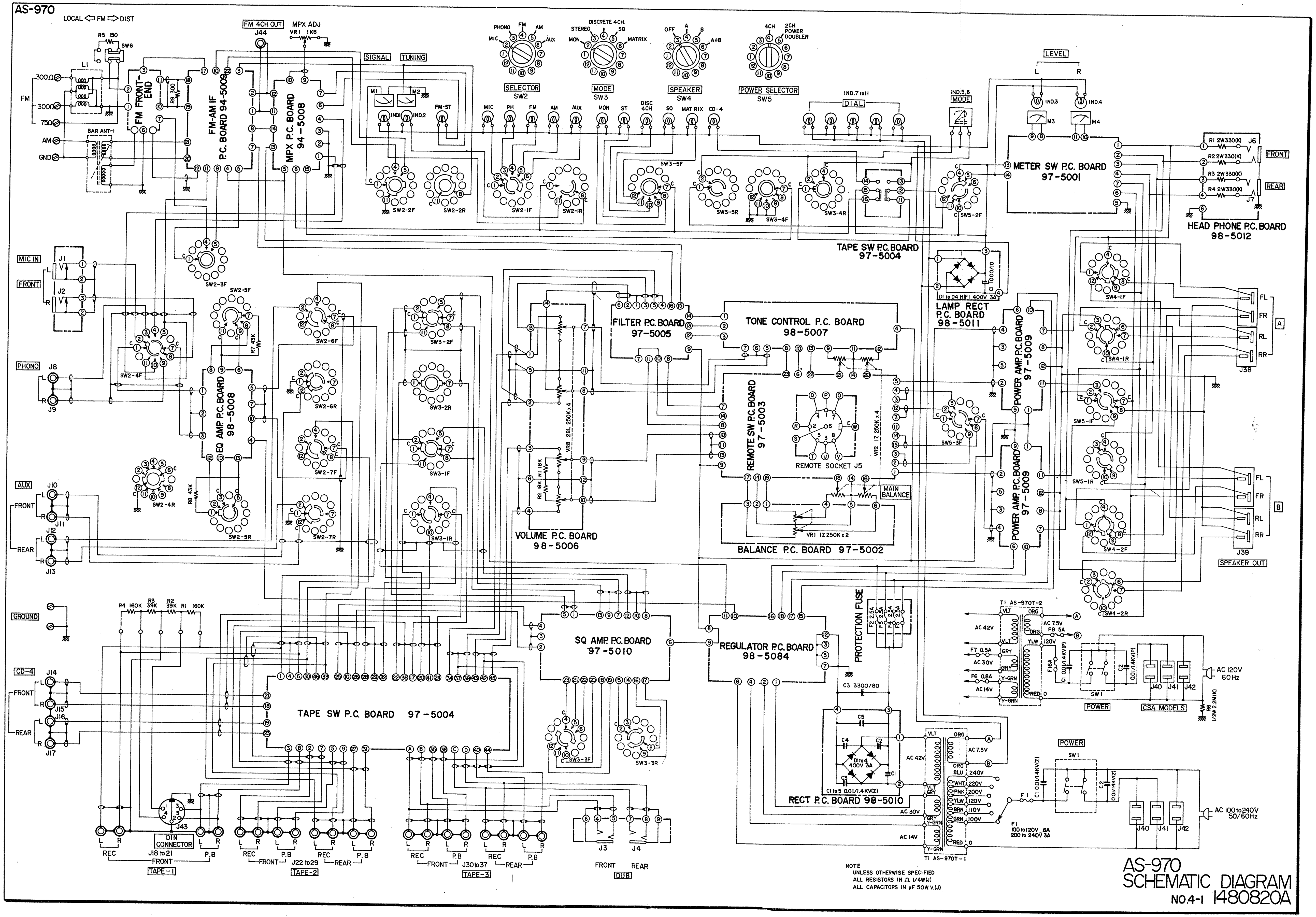
SECTION 3

SCHEMATIC DIAGRAM

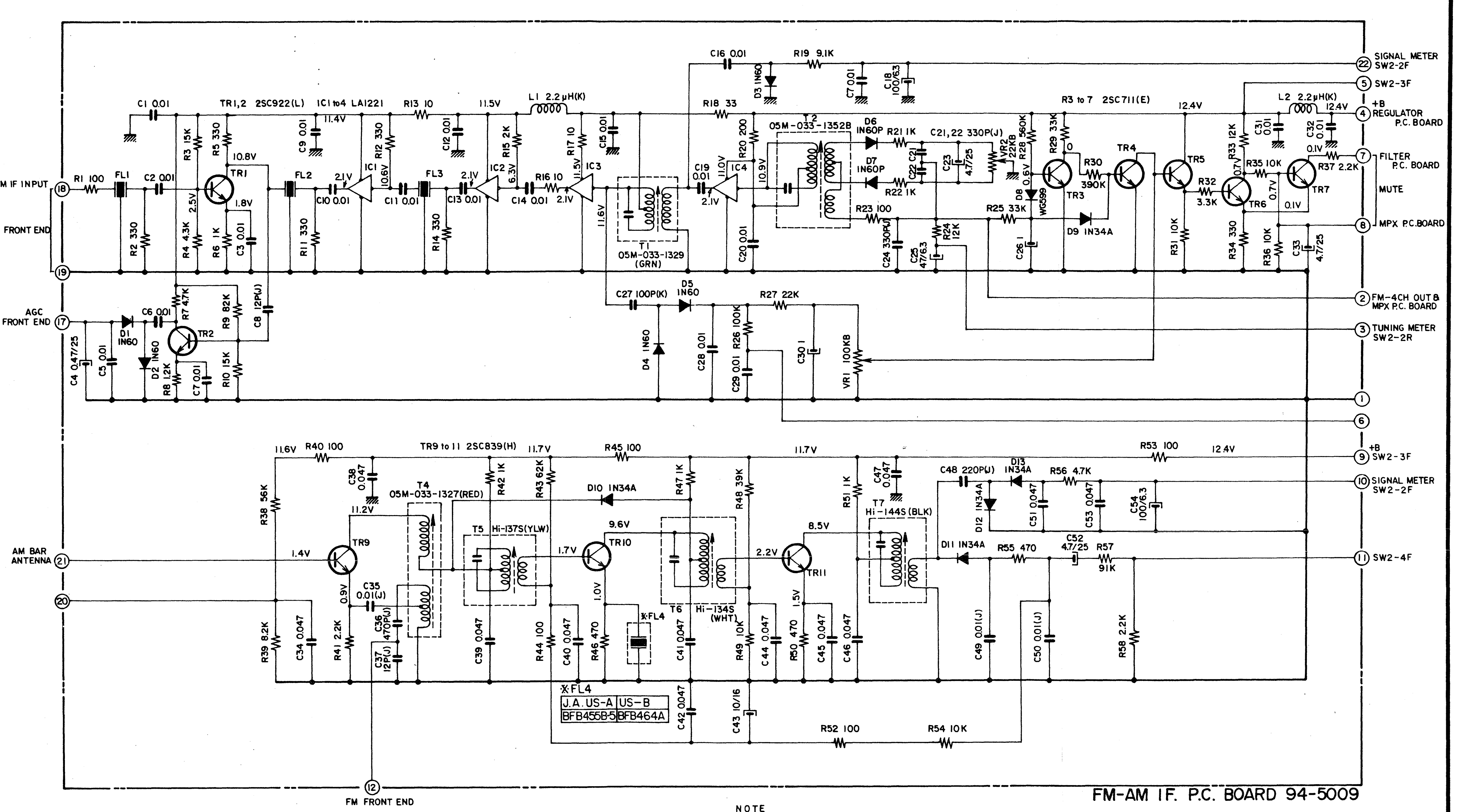

AS-970
LOCAL FM DIST
R5 150
SW6
L1
FM
300Ω
300Ω
75Ω
AM
GND
BAR ANT-1
FM FRONT-END
R9 300
FM-AM IF P.C. BOARD 94-5009
FM 4CH OUT
J44
MPX ADJ
VR1 1KB
MPX P.C. BOARD 94-5008
SIGNAL
TUNING
M1
M2
IND.1
IND.2
FM-ST
SW2-2F
SW2-2R
PHONO FM AM
MIC AUX
SELECTOR
SW2
DISCRETE 4CH.
STEREO SQ
MON MATRIX
MODE
SW3
OFF A B A+B
SPEAKER
SW4
4CH 2CH POWER DOUBLER
POWER SELECTOR
SW5
MIC PH FM AM AUX MON ST DISC 4CH SQ MAT RIX CD-4
SW2-1F
SW2-1R
SW3-5F
SW3-5R
SW3-4F
SW3-4R
IND.7 to 11
DIAL
IND.5,6
MODE
SW5-2F
TAPE SW P.C. BOARD 97-5004
LEVEL
L R
IND.3
IND.4
M3
M4
METER SW P.C. BOARD 97-5001
R1 2W330(K)
R2 2W330(K)
R3 2W330(K)
R4 2W330(K)
J6
J7
FRONT
REAR
HEAD PHONE P.C. BOARD 98-5012
LAMP RECT P.C. BOARD 98-5011
D1 to D4 H(F) 400V 3A
1000/10
MIC IN
FRONT
J1
J2
SW2-3F
PHONO
J8
J9
SW2-4F
SW2-5F
R7 43K
EQ AMP P.C. BOARD 98-5008
SW2-4R
R8 43K
SW2-5R
SW2-6F
SW2-6R
SW2-7F
SW2-7R
SW3-2F
SW3-2R
SW3-1F
SW3-1R
VOLUME P.C. BOARD 98-5006
VR8 2BL 250K x 4
R1 18K
R2 18K
FILTER P.C. BOARD 97-5005
TONE CONTROL P.C. BOARD 98-5007
REMOTE SW P.C. BOARD 97-5003
REMOTE SOCKET J5
VR2 1Z 250K x 4
MAIN BALANCE
VR1 1Z 250K x 2
BALANCE P.C. BOARD 97-5002
SW5-3F
POWER AMP P.C. BOARD 97-5009
POWER AMP P.C. BOARD 97-5009
SW4-1F
SW4-1R
SW5-1F
SW5-1R
SW4-2F
SW4-2R
FL FR RL RR
A
B
J38
J39
SPEAKER OUT
AUX
J10
J11
J12
J13
FRONT
REAR
GROUND
R4 160K
R3 39K
R2 39K
R1 160K
CD-4
J14
J15
J16
J17
SQ AMP P.C. BOARD 97-5010
SW3-3F
SW3-3R
TAPE SW P.C. BOARD 97-5004
DIN CONNECTOR
J43
REC P.B
J18 to 21
FRONT
TAPE-1
J22 to 29
FRONT REAR
TAPE-2
J30 to 37
FRONT REAR
TAPE-3
J3
J4
FRONT REAR
DUB
REGULATOR P.C. BOARD 98-5084
PROTECTION FUSE
C3 3300/80
C4 C5 C2 C3 C1
D1 to 4 400V 3A
C1 to 5 0.01/1.4KV(Z)
RECT P.C. BOARD 98-5010
T1 AS-970T-2
VLT ORG
AC 42V
AC 7.5V
F8 5A
F7 0.5A
AC 30V
GRY
YLW 120V
F6 0.8A
Y-GRN
AC 14V
RED 0
F1 6A
C1 0.01/1.4KV(P)
C2 0.01/1.4KV(P)
SW1
POWER
J40 J41 J42
CSA MODELS
R6 1/2W 2.2M(K)
AC 120V 60Hz
T1 AS-970T-1
BLU 240V
WHT 220V
PNK 200V
YLW 120V
BRN 110V
GRN 100V
F1 100 to 120V 6A 200 to 240V 3A
C1 0.01/1.4KV(Z)
C2 0.01/1.4KV(Z)
AC 100 to 240V 50/60Hz

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN Ω 1/4W(J)
ALL CAPACITORS IN μF 50W.V.(J)

AS-970
SCHEMATIC DIAGRAM

NO.4-1 1480820A

AS-970

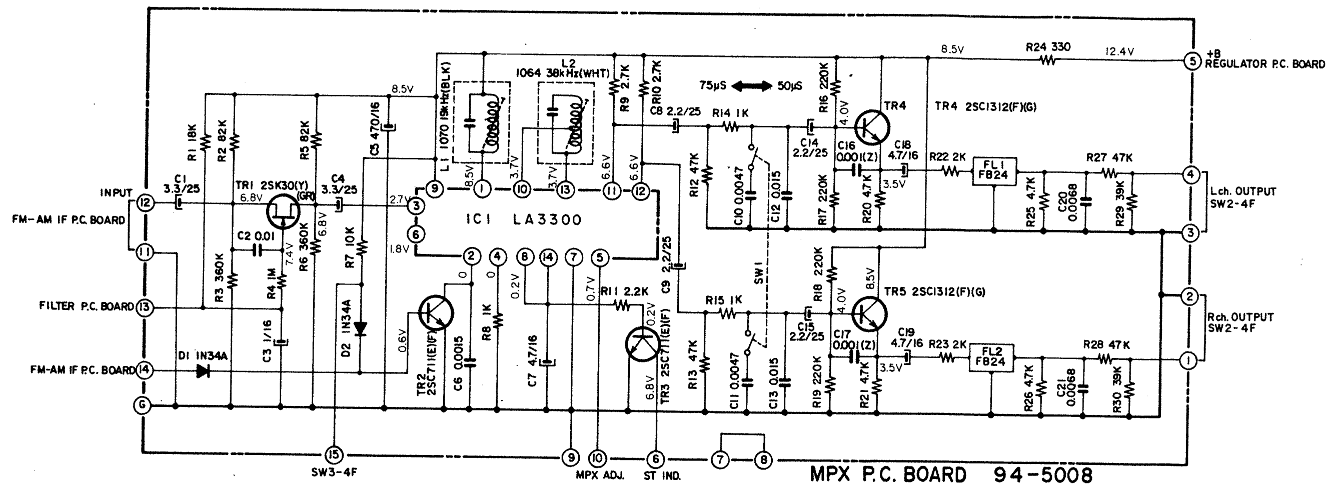

FM IF INPUT
FRONT END
AGC FRONT END
AM BAR ANTENNA
FM FRONT END
SIGNAL METER SW2-2F
SW2-3F
+B REGULATOR P.C. BOARD
FILTER P.C. BOARD
MUTE
MPX P.C. BOARD
FM-4CH OUT & MPX P.C. BOARD
TUNING METER SW2-2R
+B SW2-3F
SIGNAL METER SW2-2F
SW2-4F
TR1,2 2SC922(L)
IC1 to 4 LA1221
R3 to 7 2SC711(E)
TR9 to 11 2SC839(H)
T1 05M-033-1329 (GRN)
T2 05M-033-1352B
T4 05M-033-1327(RED)
T5 Hi-137S(YLW)
T6 Hi-134S (WHT)
T7 Hi-144S (BLK)
L1 2.2μH(K)
L2 2.2μH(K)
VR1 100KB
VR2 22KB
※FL4
J.A. US-A | US-B
BFB455B-5 | BFB464A

FM-AM I.F. P.C. BOARD 94-5009

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN Ω 1/4W (J)
ALL CAPACITORS IN μF 50W.V.(Z)

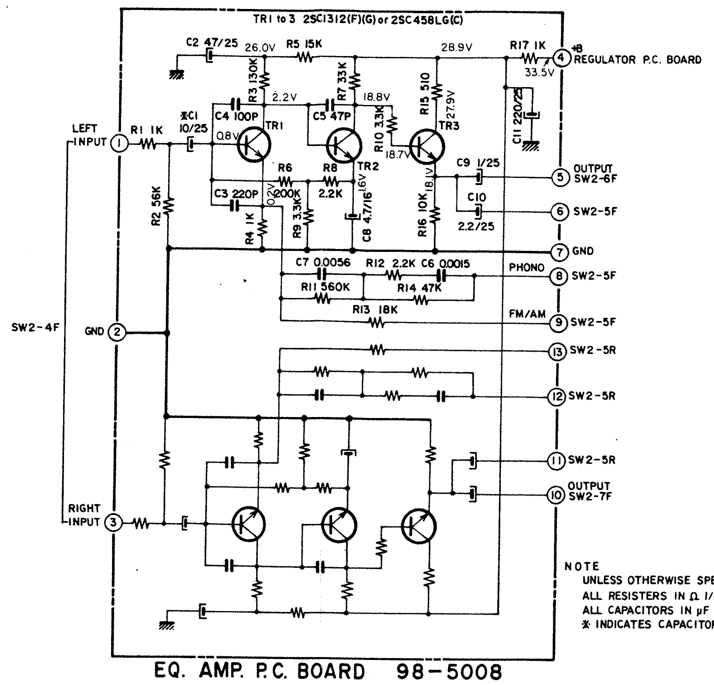
AS-970
SCHEMATIC DIAGRAM
NO.4-2 148082IA
2C

AS-970


INPUT
FM-AM IF P.C. BOARD
FILTER P.C. BOARD
FM-AM IF P.C. BOARD
TR1 2SK30(Y)(GR)
C1 3.3/25
R1 18K
R2 82K
R3 360K
R4 1M
R5 82K
R6 360K
C2 0.01
C3 1/16
C4 3.3/25
C5 470/16
R7 10K
D1 1N34A
D2 1N34A
TR2 2SC711(E)(F)
C6 0.0015
R8 1K
C7 47/16
L1 1070 19kHz(BLK)
L2 1064 38kHz(WHT)
IC1 LA3300
R9 2.7K
R10 2.7K
C8 2.2/25
C9 2.2/25
R11 2.2K
TR3 2SC711(E)(F)
75μS 50μS
R14 1K
R15 1K
SW1
C10 0.0047
C11 0.0047
C12 0.015
C13 0.015
R12 47K
R13 47K
C14 2.2/25
C15 2.2/25
R16 220K
R17 220K
R18 220K
R19 220K
C16 0.001(Z)
C17 0.001(Z)
TR4
TR4 2SC1312(F)(G)
TR5 2SC1312(F)(G)
C18 4.7/16
C19 4.7/16
R20 4.7K
R21 4.7K
R22 2K
R23 2K
FL1 FB24
FL2 FB24
R24 330
R25 4.7K
R26 4.7K
C20 0.0068
C21 0.0068
R27 47K
R28 47K
R29 39K
R30 39K
+B REGULATOR P.C. BOARD
Lch. OUTPUT SW2-4F
Rch. OUTPUT SW2-4F
SW3-4F
MPX ADJ.
ST IND.
8.5V
12.4V
6.8V
7.4V
6.8V
2.7V
1.8V
0.6V
0.2V
0.7V
6.6V
4.0V
3.5V
8.5V

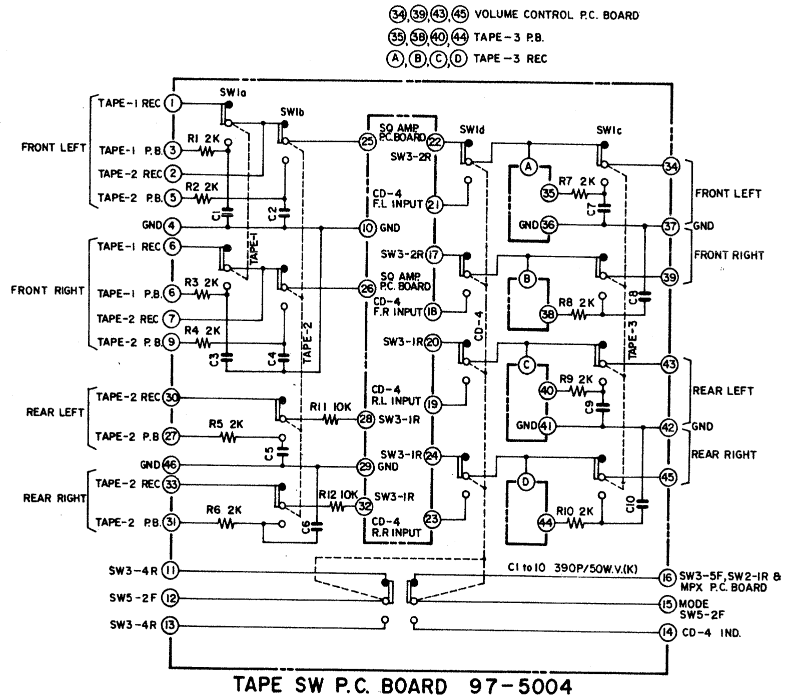
MPX P.C. BOARD 94-5008

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN Ω 1/4W(J)
ALL CAPACITORS IN μF 50W.V.(J)


TR1 to 3 2SC1312(F)(G) or 2SC458LG(C)
C2 47/25
R5 15K
R17 1K
+B REGULATOR P.C. BOARD
LEFT INPUT
R1 1K
※C1 10/25
R3 130K
C4 100P
TR1
R7 33K
C5 47P
TR2
R10 3.3K
R15 510
TR3
C11 220/25
R6 200K
R8 2.2K
C3 220P
R2 56K
R4 1K
R9 3.3K
C8 4.7/16
R16 10K
C9 1/25
C10 2.2/25
OUTPUT SW2-6F
SW2-5F
GND
C7 0.0056
R12 2.2K
C6 0.0015
PHONO
R11 560K
R14 47K
R13 18K
FM/AM
SW2-5F
SW2-5F
SW2-5R
SW2-5R
SW2-5R
OUTPUT SW2-7F
SW2-4F
GND
RIGHT INPUT
26.0V
28.9V
33.5V
2.2V
18.8V
27.9V
0.8V
18.7V

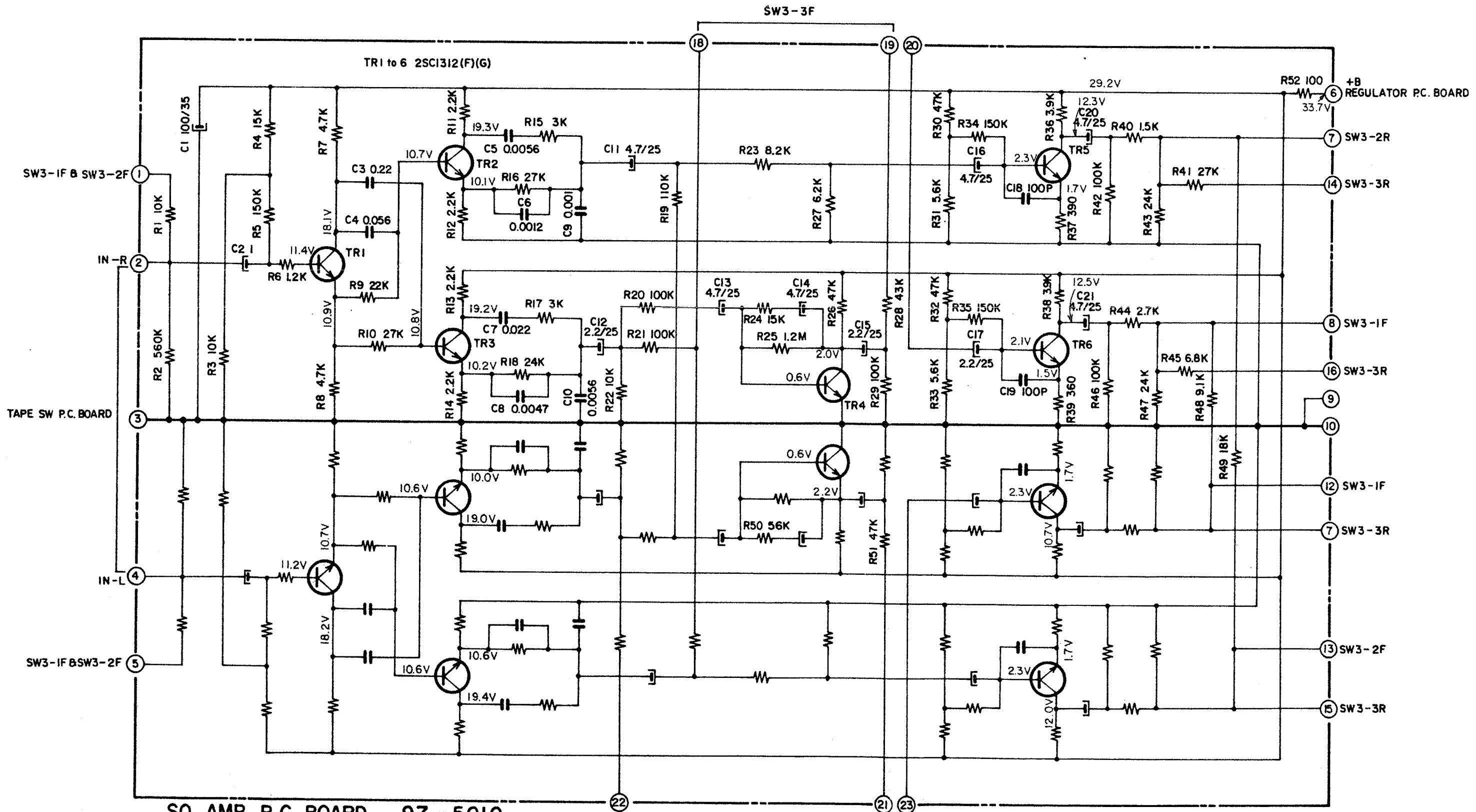
EQ. AMP. P.C. BOARD 98-5008

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTERS IN Ω 1/4W(J)
ALL CAPACITORS IN μF 50W.V.(J)
※ INDICATES CAPACITOR LOW LEAKAGE CAPACITORS


㉞㊴㊸㊺ VOLUME CONTROL P.C. BOARD
㉟㊳㊵㊹ TAPE-3 P.B.
Ⓐ Ⓑ Ⓒ Ⓓ TAPE-3 REC
FRONT LEFT
TAPE-1 REC
TAPE-1 P.B.
TAPE-2 REC
TAPE-2 P.B.
GND
FRONT RIGHT
REAR LEFT
REAR RIGHT
SW1a
SW1b
SW1c
SW1d
R1 2K
R2 2K
R3 2K
R4 2K
R5 2K
R6 2K
R7 2K
R8 2K
R9 2K
R10 2K
R11 10K
R12 10K
TAPE-1
TAPE-2
TAPE-3
CD-4
SQ AMP. P.C. BOARD
SW3-2R
CD-4 F.L INPUT
CD-4 F.R INPUT
SW3-1R
CD-4 R.L INPUT
CD-4 R.R INPUT
C1 to 10 390P/50W.V.(K)
SW3-4R
SW5-2F
SW3-4R
SW3-5F, SW2-1R & MPX P.C. BOARD
MODE SW5-2F
CD-4 IND.
FRONT LEFT
FRONT RIGHT
REAR LEFT
REAR RIGHT

TAPE SW P.C. BOARD 97-5004

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTERS IN Ω 1/4W(J)


SW3-3F
TR1 to 6 2SC1312(F)(G)
R52 100
+B REGULATOR P.C. BOARD
SW3-1F & SW3-2F
IN-R
TAPE SW P.C. BOARD
IN-L
SW3-1F & SW3-2F
C1 100/35
R1 10K
R2 560K
R3 10K
R4 15K
R5 150K
R6 1.2K
R7 4.7K
R8 4.7K
R9 22K
R10 27K
R11 2.2K
R12 2.2K
R13 2.2K
R14 2.2K
R15 3K
R16 27K
R17 3K
R18 24K
R19 110K
R20 100K
R21 100K
R22 10K
R23 8.2K
R24 15K
R25 1.2M
R26 47K
R27 6.2K
R28 43K
R29 100K
R30 47K
R31 5.6K
R32 47K
R33 5.6K
R34 150K
R35 150K
R36 3.3K
R37 390
R38 3.3K
R39 360
R40 1.5K
R41 27K
R42 100K
R43 24K
R44 2.7K
R45 6.8K
R46 100K
R47 24K
R48 9.1K
R49 18K
R50 56K
R51 47K
C2 1
C3 0.22
C4 0.056
C5 0.0056
C6 0.0012
C7 0.022
C8 0.0047
C9 0.001
C10 0.0056
C11 4.7/25
C12 2.2/25
C13 4.7/25
C14 4.7/25
C15 2.2/25
C16 4.7/25
C17 2.2/25
C18 100P
C19 100P
C20 4.7/25
C21 4.7/25
TR1
TR2
TR3
TR4
TR5
TR6
SW3-2R
SW3-3R
SW3-1F
SW3-3R
SW3-1F
SW3-3R
SW3-2F
SW3-3R
29.2V
33.7V
12.3V
12.5V
19.3V
10.7V
10.1V
11.4V
18.1V
10.9V
10.8V
19.2V
10.2V
2.0V
0.6V
2.3V
1.7V
2.1V
1.5V
10.6V
10.0V
19.0V
2.2V
0.7V
11.2V
18.2V
19.4V
12.0V
SW3-3F

SQ. AMP. P.C. BOARD 97-5010

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN Ω 1/4W(J)
ALL CAPACITORS IN μF 50W.V.(J)

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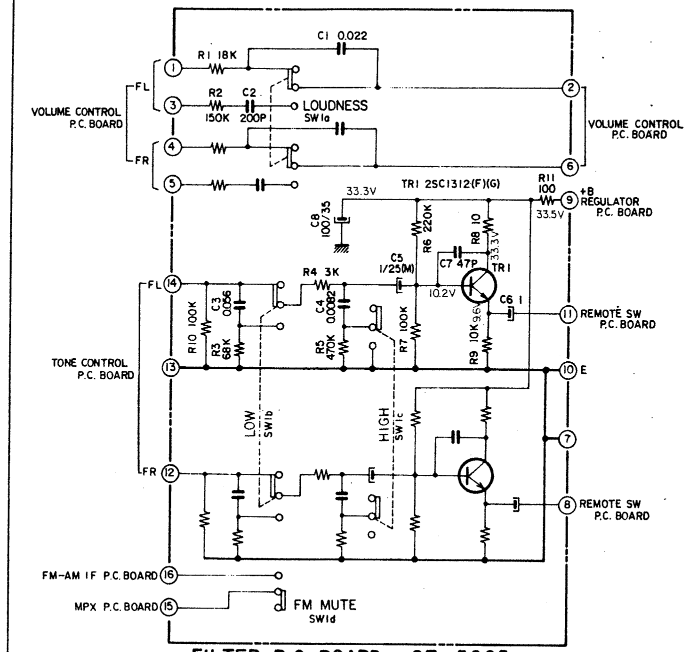
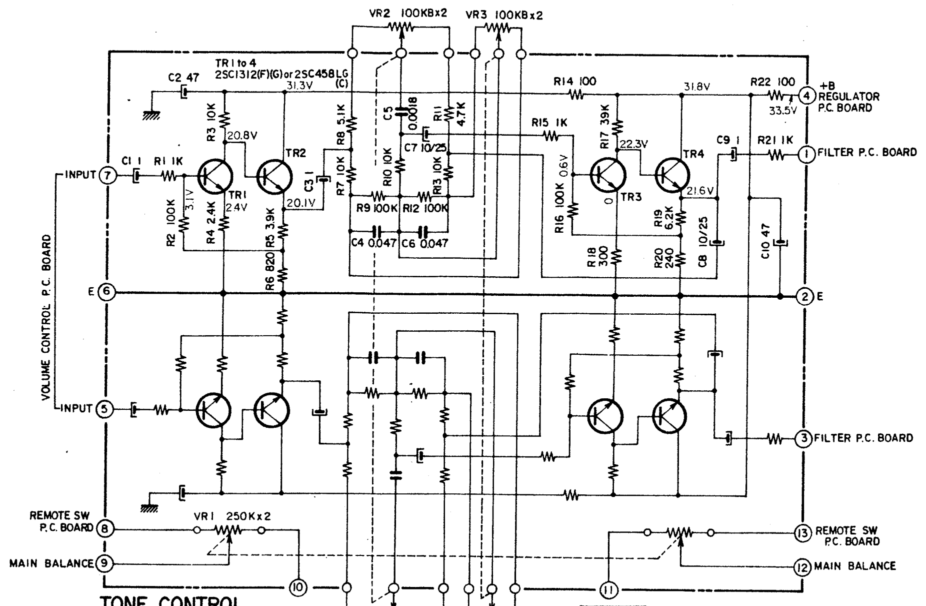
SCHEMATIC DIAGRAM
NO.4-3 1480822A
2C

AS-970


VOLUME CONTROL P.C. BOARD
LOUDNESS SW1a
TR1 2SC1312(F)(G)
+B REGULATOR P.C. BOARD
REMOTE SW P.C. BOARD
TONE CONTROL P.C. BOARD
LOW SW1b
HIGH SW1c
FM-AM IF P.C. BOARD
MPX P.C. BOARD
FM MUTE SW1d

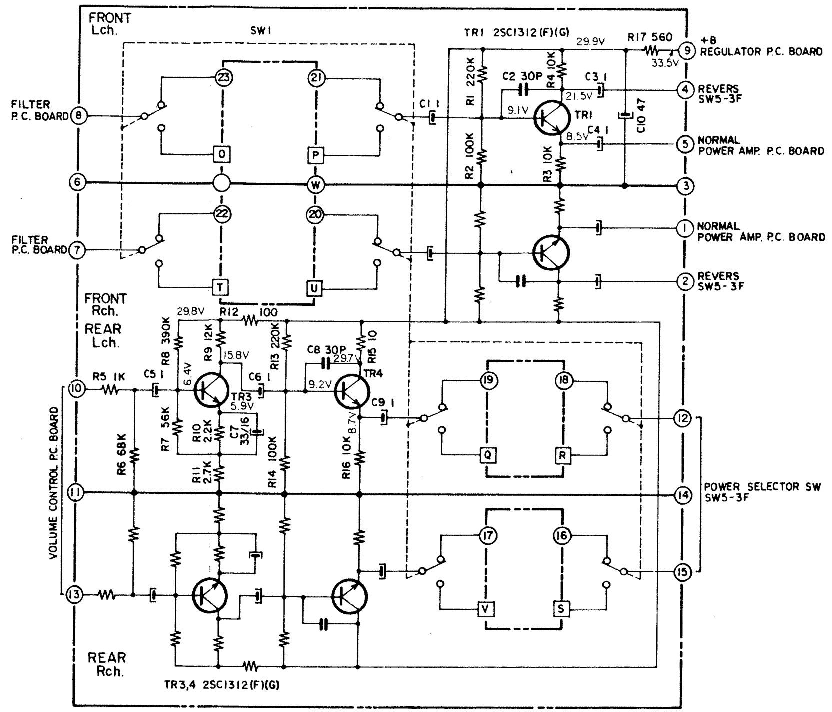
FILTER P.C. BOARD 97-5005

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN Ω 1/4W(J)
ALL CAPACITORS IN μF 50W.V.(J)


VR2 100KBx2
VR3 100KBx2
TR1 to 4 2SC1312(F)(G) or 2SC458LG(C)
INPUT
VOLUME CONTROL P.C. BOARD
+B REGULATOR P.C. BOARD
FILTER P.C. BOARD
REMOTE SW P.C. BOARD
MAIN BALANCE
VR1 250Kx2
TREBLE
BASS
BALANCE VR1

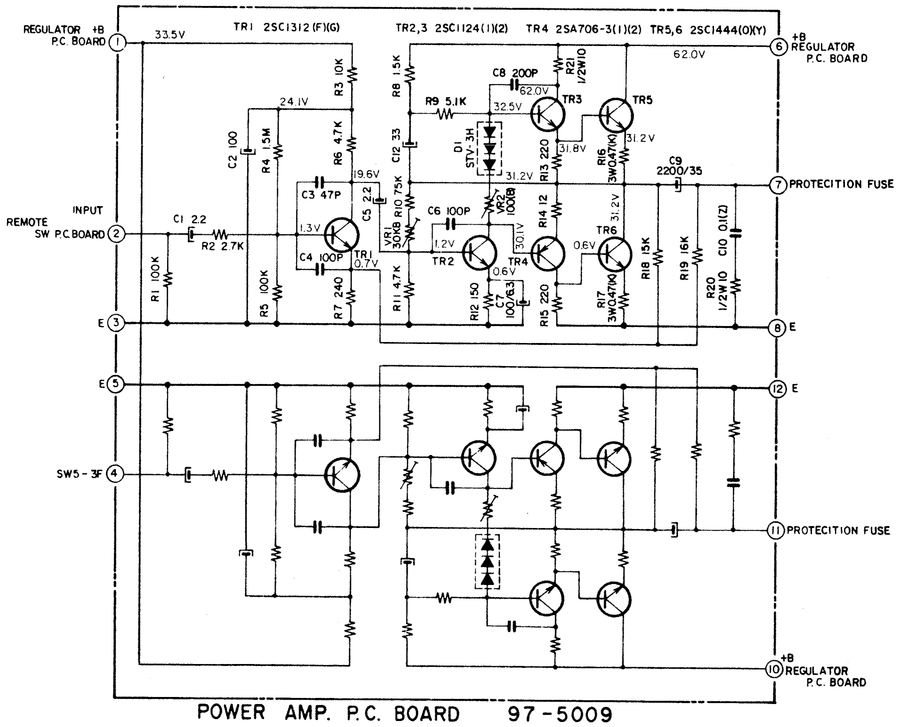
TONE CONTROL P.C. BOARD 98-5007

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN Ω 1/4W(J)
ALL CAPACITORS IN μF 50W.V.(J)


FRONT Lch.
SW1
TR1 2SC1312(F)(G)
+B REGULATOR P.C. BOARD
REVERS SW5-3F
NORMAL POWER AMP. P.C. BOARD
FILTER P.C. BOARD
FRONT Rch.
REAR Lch.
VOLUME CONTROL P.C. BOARD
POWER SELECTOR SW SW5-3F
REAR Rch.
TR3,4 2SC1312(F)(G)

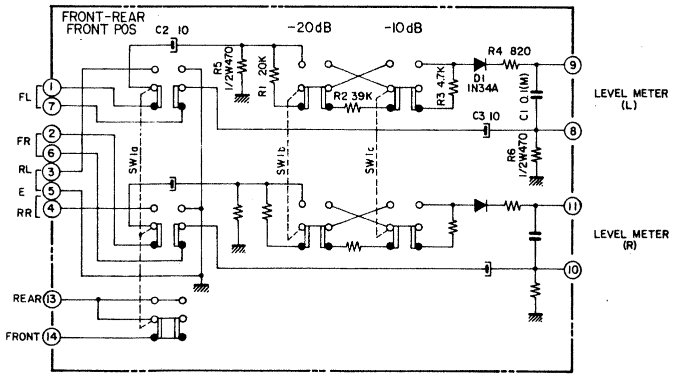
REMOTE SW P.C. BOARD 97-5003

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN Ω 1/4W(J)
ALL CAPACITORS IN μF 50W.V.(J)
O to V, W CNNECTED REMOTE SOCKET TERMINAL J5


REGULATOR +B P.C. BOARD
TR1 2SC1312(F)(G)
TR2,3 2SC1124(1)(2)
TR4 2SA706-3(1)(2)
TR5,6 2SC1444(O)(Y)
+B REGULATOR P.C. BOARD
PROTECTION FUSE
INPUT
REMOTE SW P.C. BOARD
SW5-3F
PROTECITION FUSE
+B REGULATOR P.C. BOARD

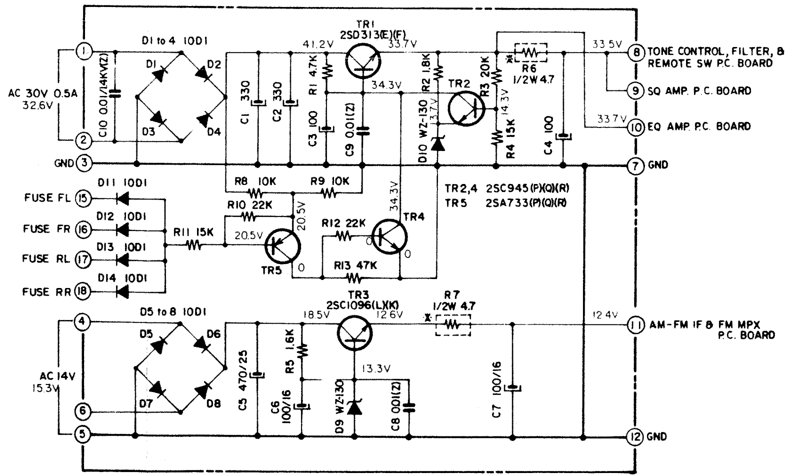
POWER AMP. P.C. BOARD 97-5009

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN Ω 1/4W(J)
ALL CAPACITORS IN μF 50W.V.(J)


FRONT-REAR FRONT POS
-20dB
-10dB
D1 1N34A
LEVEL METER (L)
LEVEL METER (R)
FL
FR
RL
E
RR
REAR
FRONT

METER SW P.C. BOARD 97-5001

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN Ω 1/4W(J)
ALL CAPACITORS IN μF 25W.V.(J)


D1 to 4 10D1
TR1 2SD313(E)(F)
AC 30V 0.5A
TONE CONTROL, FILTER, & REMOTE SW P.C. BOARD
SQ AMP. P.C. BOARD
EQ AMP P.C. BOARD
GND
FUSE FL
FUSE FR
FUSE RL
FUSE RR
TR2,4 2SC945(P)(Q)(R)
TR5 2SA733(P)(Q)(R)
TR3 2SC1096(L)(K)
AC 14V
D5 to 8 10D1
AM-FM IF & FM MPX P.C. BOARD

REGULATION P.C. BOARD 98-5084

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN Ω 1/4W(J)
ALL CAPACITORS IN μF 50WV.(J)
IN CASE OF CSA MODELS
R6 1/2W4.7 ⟶ FR1 1/4W10(K)
R7 1/2W4.7 ⟶ R6 1/2W2.2(J)

AS-970 SCHEMATIC DIAGRAM

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